



United States  
Department of  
Agriculture

Forest  
Service

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# **Environmental Assessment**

## **Off-Highway Vehicle Travel Management Project**

**Boise National Forest  
Boise, Elmore, and Valley Counties,  
Idaho**

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# **1 Purpose and Need for Action**

## **1.1 Proposed Action**

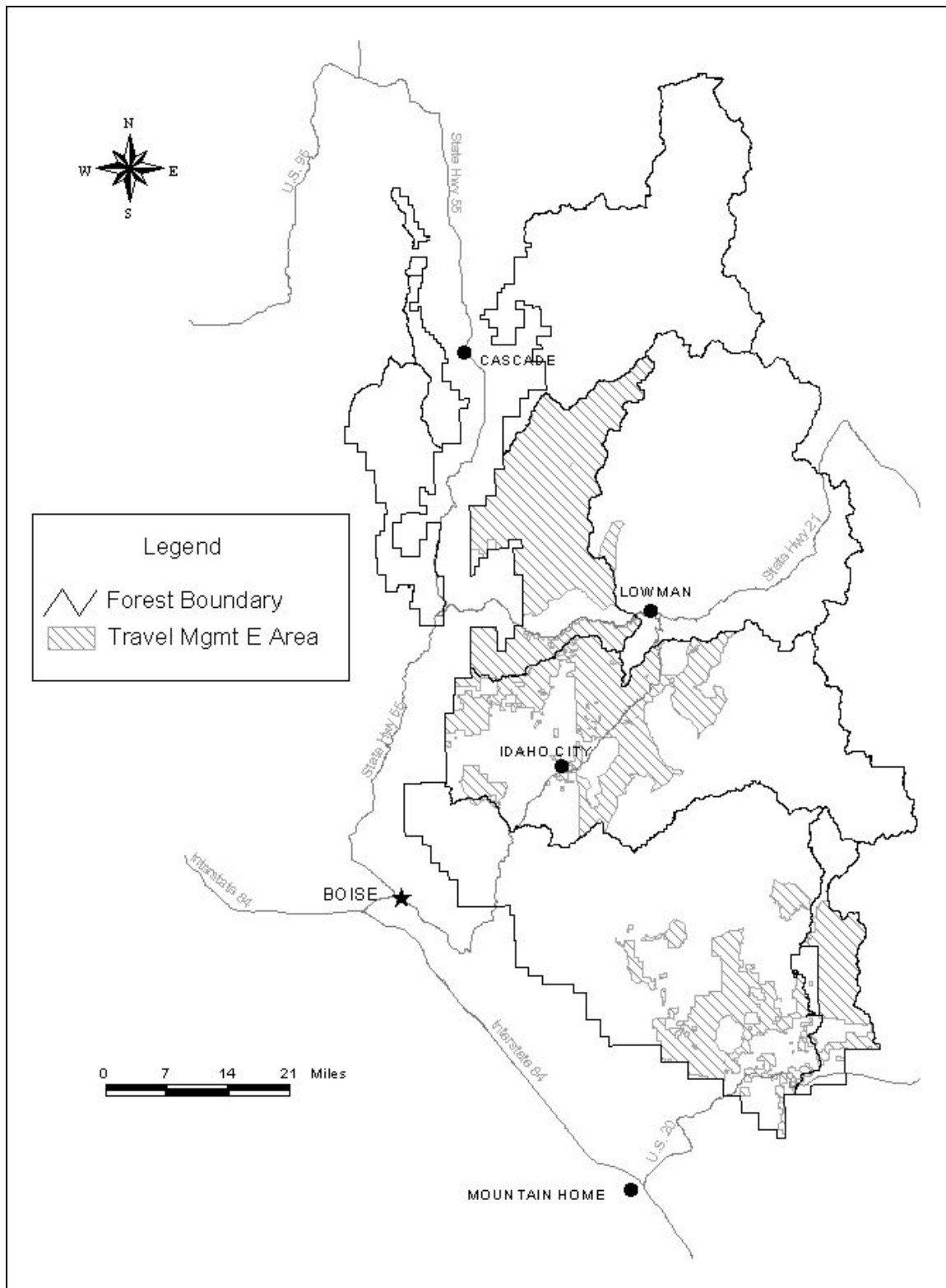
The USDA Forest Service is proposing to restrict indiscriminate motorized wheeled vehicle cross-country travel over 523,863 acres on the Boise National Forest. Motorized wheeled vehicle travel off designated roads and trails would be restricted to other existing established routes as an interim measure until subsequent site-specific planning designates roads and trails for motorized use. The Boise National Forest Off-Highway Vehicle (OHV) Travel Management Project is located in the “E” Travel Management Areas scattered across the Boise National Forest, which is located in southwest Idaho (see Figure 1-1). The “E” Travel Management Areas occur on the Emmett (213,574 acres), Idaho City (159,039 acres), Mountain Home (145,799 acres) and Lowman (5,363 acres) Ranger Districts of the Boise National Forest.

## **1.2 Background Information**

The current travel management strategy for the Boise National Forest was developed in the late 1980s and was incorporated into the 1990 Boise National Forest Plan. As part of this strategy, several areas on the Boise National Forest were designated to discourage, but not prohibit, motorized travel off designated roads and trails. These areas are designated as “E” Travel Management Areas on the current Boise National Forest Visitor/Travel Map. Prior to that time, motorized travel was unrestricted across the majority (80 to 90 percent) of the National Forest.

Discouraging cross-country travel without actually prohibiting it was deemed an appropriate travel management strategy for the number and type of off-road vehicles most prevalent 15 years ago, specifically 4-wheel drive trucks and off-highway motorcycles. Since that time, there has been a huge increase in OHV use. Idaho Department of Parks and Recreation data shows OHVs registered in Idaho increased from 16,916 in 1993 to 81,114 in 2003, an increase of 480 percent. The majority of this increase is due to the increase in the number of All Terrain Vehicles (ATVs) registered. The use of ATVs is especially prevalent during big game hunting seasons. The growing widespread use of OHVs and the ever-increasing number and travel capabilities of ATVs have resulted in access to new areas and extensive networks of user-created travel ways in historically non-motorized areas.

• Figure 1-1. Travel Management “E” Areas on the Boise National Forest



### 1.3 Purpose and Need

The purpose of this project is to avoid future resource impacts and social conflicts from the increasing use of OHVs in areas that are currently available to motorized wheeled cross-country travel. This would provide timely direction that would minimize further resource damage, user conflicts, and related problems associated with motorized wheeled vehicle cross-country travel, including new user-created routes, until subsequent site-specific planning is completed.



• Figure 1-2 User-created routes on the Boise National Forest in varied trail condition and terrain

Increasing use of OHVs is resulting in expanded areas of concentrated, repeated, regular cross-country motorized use. Cross-country use can impact sensitive habitats, such as wetlands, meadows, and riparian areas. Cross-country travel can also result in user-created travel ways with adverse resource effects (Figure 1-2). When compared to a professionally designed and constructed trail, user-created travel ways are often poorly located, too steep, and lack adequate drainage. These travel ways tend to concentrate runoff resulting in soil surface erosion. The eroded soil can wash downhill into streams, impacting water quality and fish habitat. The existence of these travel ways can degrade visual quality and provide an effective conduit for the spread of noxious weeds.

Increasing numbers of OHVs and lack of restrictions on indiscriminate cross-country motorized use results in an ever-expanding network of user-created routes that extend deeper into areas that historically provided a non-motorized recreational experience. The Forest's relatively open finger-ridge terrain has the potential to become heavily trailed in this manner. The expansion of motorized access can cause conflicts between motorized-equipped and other recreationists. This conflict is currently most pronounced between OHV-equipped hunters and hunters that hike or ride horses. The Idaho Department of Fish and Game is also growing increasingly concerned that expanded motorized access into areas previously accessed by only a few foot and horse hunters will increase big game harvest. This could ultimately result in reduced hunting opportunity for all in order to maintain healthy big game populations. The impacts to big game populations and hunting opportunities fuel conflicts between hunters using OHVs and those that hike or ride horses.

## 1.4 Objectives of the Proposed Action

The project objectives were developed based on the purpose and need in 1.3.

- Slow or reverse the trend of OHV-caused resource damage to soil, water, fisheries, visual quality, and risk of spreading noxious weeds in the “E” areas of the Boise National Forest.

**Indicators:** Qualitative discussions of effects to soil, water, fisheries, visual quality, and risk of spreading noxious weeds.

- Slow the expansion of motorized access in the “E” areas of the Boise National Forest in order to slow or reverse the trend of OHV enthusiasts, most specifically big game hunters, encroaching further and further into historically non-motorized backcountry.

**Indicator:** Qualitative discussion of effects to recreation access, big game hunting, and big game wildlife species.

## 1.5 Related EISs and Analyses That Influence the Scope of this EA

### 1.5.1 Forest Plan

The Forest Plan contains goals, objectives, guidelines, and standards related to recreation access and motorized recreation. This project is designed move toward goals and objectives in the plan, follow guidelines, and meet all applicable standards.

The Forest Plan direction is intended to provide a variety of high quality recreation access while providing adequate protection of other resources. The proposed action attempts to balance recreation access and resource effects in the same fashion as the Forest Plan. The proposed action is designed to maintain a high degree of access and to lower the risk of future resource effects from user-created travel ways. The project objectives related to wildlife, soil, water quality, and user conflicts tie to goals, objectives, and guidelines for recreation access in the Forest Plan.

This proposal would not involve an amendment to the 2003 Revised Forest Plan because it is consistent with the goals, objectives, guidelines and standards in the plan. The project’s consistency with Forest Plan direction on recreation access follows. The project file contains Forest Plan consistency checklists for other Forest Plan standards and guidelines.

The Forest Plan’s desired condition for recreation access is that a variety of environmentally responsible access is provided for recreation users. The proposed action provides a variety of access by maintaining the existing trail access currently available in the “E” areas and eliminates cross-country travel. Eliminating cross country motorized travel is intended to reduce the spread of user-created trails and associated effects to resources (1.3, 1.4).

A Forest Plan goal for general recreation (REGO03) is to address current and emerging recreation conflicts, while maintaining recreation opportunities when possible. The proposed action is designed to address conflicts related to OHV hunting practices (1.3, 1.4), while maintaining existing trail access.

The Forest Plan’s goal for recreation access (REGO05) is to manage motorized and non-motorized travel and travel-related facilities to:

- 1) Provide for public safety,
- 2) Meet resource objectives and access needs,

- 3)** Mitigate road and trail damage, and
- 4)** Minimize maintenance costs and user conflicts.

The proposed action partially addresses this goal by maintaining existing trail access in the “E” areas, while eliminating cross-country travel to reduce the spread of user-created trails. User-created trails are more likely to have effects to resources than National Forest System designed and constructed trails (1.3). Future site-specific travel management planning would address the full range of Forest Plan goals for recreation access (1.5.2).

Future site specific planning would also help meet Forest Plan objective REOB17. This objective is to initiate a process of phased, site-specific travel management planning as soon as practicable. Prioritize planning based on areas where the most significant user conflicts and resource concerns are occurring. Identify and address inconsistent access management of roads, trails, and areas across Forest, Ranger District, and interagency boundaries. The proposed action would provide more consistent access for motorized vehicles by eliminating cross-country travel for most purposes and having the same exceptions Forest wide (2.5). The analysis process could uncover some information that shows which areas are of greatest concern to the public or have resource damage associated with user-created trails. This could help determine priorities for future site-specific travel management planning.

The proposed action could help meet Forest Plan objective REOB18, which is to manage cross-country travel to mitigate recreationist and big game conflicts on winter/spring ranges. While the project focuses on motorized access related to fall hunting (1.3), the restrictions on cross-country motorized travel would reduce conflicts during the spring, as well.

The proposed action is consistent with the Forest Plan guideline FRGU09, which states, “Travel management should be used as needed to accomplish the following:

- 1)** Provide for the safety and welfare of users.
- 2)** Protect threatened and endangered species and their habitat.
- 3)** Protect Forest resources, such as wildlife, soil, vegetation, and water.
- 4)** Provide a diversity of recreational experiences and reduce user conflicts.
- 5)** Comply with Forest contracts or permits, cooperative agreements, road purchase agreements, easement deeds, or other formal documents of the Government.
- 6)** Coordinate hunting and fishing opportunities with State agencies.

The project incorporates guideline FRGU09 sections 3, 4, and 5 specifically through the project objectives and design of the proposed action. The project includes objectives related to wildlife, soil, water quality, and user conflicts (1.4). The exceptions allow for access when needed for administrative purposes (2.5). The project objectives related to water quality also show consistency with Forest Plan Guideline REGU07, which states, “Where recreation facilities or practices have been identified as potentially contributing to degradation of water quality, aquatic species or occupied sensitive and watch species habitat, facilities and practices causing degradation should be considered for relocation, closure, changes in management strategy, alteration, or discontinuance.”

The project would be implemented through changes to the Forest travel map, which is allowed by Forest Plan standard REST03. This standard states that access will be managed in accordance with the existing travel management maps and amendments, or as authorized by permit, contract, or special

use authorization. The proposed action allows for these authorized exceptions (2.5). Forest Plan standard REST04 appears more restrictive at first glance. It states, "On all lands outside of designated travel ways, motorized use shall be prohibited unless otherwise authorized." The proposed action would comply with this standard because the travel map would specifically authorize motorized vehicle use of existing trails in the "E" areas, regardless of designation along with limited cross-country travel.

### **1.5.2 Future Travel Management Projects**

The proposed action to limit motorized wheeled travel in the "E" Travel Management Areas to established roads and trails is an important interim step in travel management planning. It does not replace the long-term need to complete the site-specific analyses necessary to develop quality networks of designated trails that provide for a range of safe motorized recreation opportunities while continuing to protect resource values.

Established roads, trails, and routes may be considered for designation as part of the National Forest system through future site-specific travel management planning. While the proposal allows continued use of existing established routes, it does not "adopt" any user-created trails as part of the Forest Service designated road and trail system. This project will not make any determinations on whether the user-created trails are suitable for designation. That suitability decision will be made during future site-specific travel management planning. With public involvement, the Forest Service will continue with ongoing travel management plans and develop new travel management plans for specific areas. Through this site-specific planning, currently non-designated roads and trails will be inventoried, mapped, and analyzed to the degree necessary to evaluate and designate the roads and trails as open, seasonally open, or closed.

## **1.6 Relevant Federal, State, Local Government, and Public Involvement**

Public involvement and contacts with local government were initiated during the development of the proposed action. Forest personnel presented information about the proposal at group meetings of the Blue Ribbon Coalition, Magic Valley Trail Machine Association, Treasure Valley Trail Machine Association, and Backcountry Horsemen. Forest personnel discussed the proposal with representatives from Idaho Department of Fish and Game, Idaho Department of Lands, and Idaho Department of Parks and Recreation.

The proposed action was released to the public in January 2004. A scoping letter was sent out to over 130 individuals, organizations, and agencies. A news article discussing the proposal appeared in the Idaho Statesman on January 28, 2004. Over 70 responses to the proposal were received. Many of the responses were emails in response to the news article. These comments and the preliminary analysis completed by the Interdisciplinary team led to identification of issues (1.8). A full list of people, agencies and organizations consulted appears in Chapter 5.

## **1.7 Decision That Must Be Made**

The Boise National Forest Supervisor must decide:

- 1)** Whether, and to what degree, to restrict motorized wheeled vehicle cross country travel in the "E" travel management areas.
- 2)** If so, what exemptions would be allowed.

## 1.8 Scope of the Environmental Analysis

### 1.8.1 Issues Studied in Detail

This section identifies major issues (unresolved conflicts with the proposed action) and project objectives. The analysis of major issues and project objectives provide the basis for formulating alternatives and for making a decision on the project.

No major issues were identified for the project. The interdisciplinary team considered the scoping comments received and the potential effects of the proposed action. They developed cause and effect relationship flow charts to identify potential issues. Then they did some analysis to determine the effects of the proposed action. None of the team's analyses showed more than minor effects to any resource. Due to restrictions on project activities imposed by laws (1.9) and Forest Plan Standards (1.5), the project was developed to be relatively low impact.

The purpose and need for the project (1.3) led to the development of the project objectives (1.4). These objectives (1.4) were used to develop the proposed action (1.1), action alternatives (2.5, 2.6), and the alternatives eliminated from detailed study (2.3). Analysis of these objectives appears in Chapter 3. The comparison of the alternatives relative to the objectives and their indicators appears in the comparison summary table at the end of Chapter 2 (2.8).

### 1.8.2 Project Objectives and Indicators

The project objectives and their associated indicators follow.

- Slow or reverse the trend of OHV-caused resource damage to soil, water, fisheries, visual quality, and risk of spreading noxious weeds in the "E" areas of the Boise National Forest. Soil, water, and fisheries are discussed in 3.3. Visual quality is discussed in 3.5. Risk of spreading noxious weeds is discussed in 3.6.

**Indicators:** Qualitative discussions of effects to soil, water, fisheries, visual quality, and risk of spreading noxious weeds.

- Slow the expansion of motorized access in the "E" areas of the Boise National Forest in order to slow or reverse the trend of OHV enthusiasts, most specifically big game hunters, encroaching further and further into historically non-motorized backcountry. Recreation access is discussed in 3.2. Big game hunting is discussed in 3.2 and 3.4. Big game and other wildlife species are discussed in 3.4.

**Indicator:** Qualitative discussion of effects to recreation access, big game hunting, and big game wildlife species.

### 1.8.3 Minor Issues

#### 1.8.3.1 Introduction

Following analysis of the proposed action, the interdisciplinary team found that there were minor effects to some resources. These valid cause and effect relationships with levels of effects too low to drive the development of additional alternatives or influence a decision were determined to be minor issues. The effects related to these minor issues are described in Chapter 3. They do not appear in the comparison summary table at the end of Chapter 2.



### 1.8.3.2 List of Minor Issues

- 1) People who use OHVs to access areas off roads and trails would have to change their activities.

*These effects are discussed in 3.2.*

- 2) Increased use of the existing routes could cause localized soil disturbance and erosion

*These effects are discussed in 3.3.*

### 1.8.4 Issues Eliminated from Detailed Study

The public, other agencies, and Forest Service resource specialists raised some concerns that the interdisciplinary team analyzed to determine potential effects caused by the Proposed Action. Issues determined to have no relevance to the decision or have effects inconsequential to the decision were eliminated from detailed study. These concerns and the conclusions reached by the interdisciplinary team are discussed below. No further information on these concerns appears in this Environmental Assessment (EA).

- 1) Prohibiting cross-country motorized travel could make it difficult for grazing permittees to maintain fences, put out salt, and herd cattle.

*Cross-country motorized travel allowed under the permittee's annual operating instructions would continue to be allowed under the exemption for official Forest Service authorized activities (2.5).*

- 2) Leaving user-created motorized routes open would be a de facto codification of the routes and it would be much harder to close them later.

*Trail closures or area closures determined by future site-specific analysis would be effective. Site-specific analysis would consider the entire trail network of an area. In many cases, a designated trail system would be established and clearly signed. Excess or poorly located routes would be closed or the area would be changed from the "E" designation to a designation that only allows motorized travel on designated routes. With a high quality designated motorized trail system in place, there would be no need to continue the use on established routes. The level of access and amount of motorized trail facilities should meet motorized recreation needs for that area. There could be some illegal use of closed routes, but no more than other areas with designated trail systems.*

- 3) Restricting cross-country motorized travel would lead to more restrictions. The plan could be manipulated in the future to close existing trails to OHV use. The plan could prohibit new trail construction on the Forest.

*The ultimate goal of motorized trail management is to provide high quality trail opportunities in a way that does not cause excessive adverse effects to other resources. Eliminating motorized travel that harms resources and building trails with minimal effects to resources are both needed to meet that goal. In some areas, this may mean less or no motorized access. In less sensitive areas, motorized trail access may increase. Site specific future analysis would ensure that recreation opportunities and local resources are both considered when determining what kind of motorized trail system should be designated in a particular area.*

- 4) Restricting cross-country motorized travel would restrict access for people with disabilities and make it hard for older people to access the Forest.

*All individuals who depend on OHVs to access areas off trails in the “E” areas would have to change their cross-country OHV travel activities (3.2.4.2). This would include individuals with limited mobility who utilize OHVs for Forest access. People with limited mobility were not singled out for special analysis because individual situations vary, and the effects to individuals with limited mobility are already encompassed in the general effects to all OHV users.*

*Section 504 of the Rehabilitation Act of 1973, as amended, requires that programs and activities are to be accessible to people with disabilities. However federal laws, regulations, and policies, including Section 504 do not require agencies that restrict or prohibit OHV use for all people to make exceptions for such use because a person has a disability.*

*Some Ranger Districts do provide opportunities for disabled individuals to hunt on National Forest System roads behind gates on a limited basis. These type programs may continue and may be expanded with or without this proposal.*

- 5) The next step of evaluating user-created routes may never happen.

*Evaluations of various user-created routes will occur in the future regardless of whether the proposed action takes place. The Forest Service evaluates user-created routes as a standard practice when considering access, trail construction, or restoration work in an area. These kinds of evaluations have already occurred in some areas, including the Danskin Mountains, Wilson Flat, and Sage Hen areas. The rate at which future evaluations would occur and the locations chosen will depend on future Forest budgets and the on-the-ground resource needs in individual areas.*

- 6) Allowing travel to continue on user-created routes rewards motorized users for creating them in the first place and encourages them to create more. More user-created trails and roads will be developed before the site-specific inventory is completed.

*Currently, route creation caused by casual cross-country travel in the “E” areas is allowed. The “E” travel management designation describes cross country travel as “discouraged”, which means that it is not good, but it is allowed. Up to this point, there wasn’t any reason for people to deliberately try to create routes in the “E” areas because they could go wherever they wanted, anyway. It is possible that people whose favorite routes are borderline in terms of the definition of existing routes may try to use them a bit more in order to make sure the routes meet the definition prior to the decision, but most popular routes likely meet the definition already. It is unlikely that entire new routes could be created through casual use prior to the decision for this project due to the short planning timeframes. If a decision is made to prohibit cross-country travel in late spring or early summer, new route creation should cease or be greatly reduced before the heavy OHV use period. Having existing routes in place in no way guarantees that they would be retained in subsequent planning and decisions or that a particular area would have motorized access in the future so the only incentive would be availability for short term use.*

- 7) Restricting cross-country motorized travel is an infringement of the rights of American citizens.

*Cross-country motorized travel on National Forest System land is not a right. Travel of any kind on National Forest System land is governed by federal regulations, Forest Service Manuals and Handbooks, Forest Plans, Travel Management Plans, and site-specific orders.*

*Executive Orders 11644 and 11989 (1.9.8) specifically direct agencies to manage off-road vehicle use in order to protect resources, promote safety, and minimize conflicts among users.*

- 8)** Restricting cross-country motorized travel prevents people from camping away from roads and trails.

*People would still be able to camp away from roads and trails using lightweight camping gear hiked in with a backpack or cart. The proposed action would affect people who camp with gear they cannot transport over long distances. These effects are encompassed in the general effects to OHV users discussed in 3.2.4.2.*

- 9)** Restricting cross-country motorized travel prevents people from enjoying nature and gaining spiritual renewal in remote areas.

*There would still be numerous opportunities for OHV users to enjoy nature on established routes open to motorized travel. The proposed action would affect people who depend on cross-country motorized travel to enjoy nature. These effects are encompassed in the general effects to OHV users discussed in 3.2.4.2.*

- 10)** Allowing continued use of existing roads and trails makes it difficult to enforce hunting regulations. People hunt illegally from OHVs.

*The proposed action would not change law enforcement capability. The proposal includes an exemption for cross-country motorized use for law enforcement purposes. Eliminating public cross-country motorized travel would likely reduce the amount of hunting from OHVs away from existing roads and trails because motorized access would be eliminated in these areas.*

*The Forest Service does not have jurisdiction over hunting behavior. Idaho Department of Fish and Game regulates what animals can be hunted, how many people can hunt, where hunting is allowed, which weapons can be used, and when hunting can occur. The IDFG has also added restrictions on hunting using motorized vehicles as an aid in some areas. Access management on National Forest system land can benefit IDFG's big game management objectives (for example there are many seasonal road closures on NFS roads specifically to reduce big game vulnerability).*

- 11)** Restricting cross-country motorized travel would not be effective without additional public education.

*Public education would be included in the project implementation plan. This plan would include activities such as changing the Forest Visitor map, writing prohibition orders to change the travel management of the "E" areas, changing signs, distributing brochures, and writing press releases. Extensive collaboration and public involvement were done during project development and analysis to provide public education on motorized travel.*

- 12)** Restricting cross-country motorized travel would not be effective without additional law enforcement.

*The majority of people will follow regulations if they are aware of them and understand why they are important. Public education would be included in the project implementation plan (discussed above). Many people already confine their activities to existing routes to avoid damaging vegetation and other resources. The Tread Lightly campaign and motorized recreation groups have provided public information for years on how to recreate with minimal*

*effects to resources. Violations of cross-country travel restrictions proposed for the "E" areas are not expected to be any greater than other areas of the Forest.*

## **1.9 Applicable Regulatory Requirements, Required Coordination, Licenses and Permits**

### **1.9.1 Introduction**

The environmental laws discussed below are relevant to the proposed activities and require specific coordination and consultation with other government agencies. A section on federal licenses and permits that are needed to implement the project are also discussed in this section.

### **1.9.2 Endangered Species Act**

This act provides for the protection and conservation of threatened and endangered wildlife, fish, and plant species. The District wildlife biologist, fisheries biologist, and botanist reviewed the USDI Fish and Wildlife Service's Forest Wide Species List letter (SP#1-4-04-SP-259) of March 5, 2004. A biological assessment for several species was completed and is included in the project file. The assessment contains a determination that the project would have "no effect" to Chinook salmon, steelhead trout, and the yellow-billed cuckoo. The project "may affect, but is not likely to adversely affect bull trout, bald eagle, Canada lynx, gray wolf, and Northern Idaho ground squirrel. Consultation with USDI Fish and Wildlife Service took place at Level 1 Team meetings. Consensus on the determinations was reached at the April 22, 2004 meeting.

### **1.9.3 National Historic Preservation Act**

This act establishes a requirement for consideration of potential impacts to historic properties. This project was reviewed and determined to have no effect on any historic properties. The cultural resource report is in the project file.

### **1.9.4 Executive Order 13175 on Consultation and Coordination with Indian Tribal Governments**

This order established a requirement for regular and meaningful consultation between federal and tribal government officials on federal policies that have tribal implications. The proposed action was presented and discussed at the August 21, 2004 Wings and Roots meeting. These meetings are an official part of the consultation process between the Shoshone-Paiute Tribe and the Boise National Forest. At the meeting, representatives of the Shoshone-Paiute and Shoshone-Bannock Tribes indicated support for reduced cross-country OHV use. Copies of the proposed action were mailed to the Shoshone-Paiute, Shoshone-Bannock and Nez Perce Tribes. The tribes have not identified any adverse effects to tribal interests or treaty rights associated with this project. Consultation is ongoing with staff to staff interaction between the Boise National Forest and the Shoshone-Bannock Tribes.

### **1.9.5 Migratory Bird Treaty Act**

This act and subsequent executive order and memorandum of understanding between the USDI Fish and Wildlife Service and USDA Forest Service provide for the protection of migratory birds. Many migratory bird species utilize the Boise National Forest. The project meets the requirements of the act because it does not involve "take" of migratory birds.

### **1.9.6 Clean Air Act**

The Clean Air Act defines the National Ambient Air Quality Standards (NAAQS) for various sources of pollutants that must be met to protect human health and welfare, including visibility. The project would meet all NAAQS. The project would not directly affect air quality. Vehicle emissions and dust from OHV use would be dispersed and quickly dissipated. They would not be noticeable except in the direct vicinity of OHVs.

### **1.9.7 Nonpoint Source Water Quality Program for the State of Idaho**

This program provides for the protection of Idaho's waters from nonpoint source pollutants. A Federal Consistency Checklist provides for compliance with the nonpoint source water quality provisions of the Federal Clean Water Act for the State of Idaho as agreed to in a Memorandum of Understanding (MOU) between the responsible State of Idaho and Federal land management agencies. This project meets the requirements of the MOU by completing the Federal Consistency Checklists, which are in the project file. Any portions of the checklists that are relevant to the decision to be made for this project are analyzed in detail within this environmental document.

### **1.9.8 Executive Orders 11644 and 11989 on Use of Off-Road Vehicles on the Public Lands**

These Executive Orders establish policies to ensure that the use of off-road vehicles on public lands will be controlled to protect resources, to promote safety, and minimize conflicts among the various uses of public lands. The proposed action was designed to be consistent with these Executive Orders. The project has specific objectives related to soil, water, fisheries, hunting, and big game (1.4). Implementation would include appropriate signing and incorporating new restrictions into Forest visitor maps and other publications. The proposed action includes exemptions to allow cross-country travel for law enforcement, fire, emergency, national defense, federal employees, and contractors (2.5).

### **1.9.9 Federal Licenses and Permits**

No federal licenses or permits would be required.

### **1.10 Organization of this Environmental Assessment**

This Environmental Assessment (EA) varies slightly from the organization established by the Council of Environmental Quality Regulations (40 CFR 1500 to 1508). This document has a combined Affected Environment and Environmental Consequences chapter because the resource sections are fairly short. Having resource information consolidated should help readers who prefer to read the document in its entirety. This document consists of the following chapters:

- Purpose and Need for Action
- Alternatives, Including the Proposed Action
- Affected Environment and Environmental Consequences
- List of Preparers
- List of Agencies and Persons Consulted
- Appendix

## **2 Alternatives, Including the Proposed Action**

### **2.1 Introduction**

The Alternatives chapter is the heart of this Environmental Assessment. This chapter describes in detail the no-action alternative and the proposed action alternative that the interdisciplinary team studied in detail. The information in this chapter was used as the basis for analysis of the alternatives. Chapter 3, "Affected Environment and Environmental Consequences," describes the current condition of environmental resources of the project area and presents, in comparative form, the environmental effects of the three alternatives. This information will provide a clear basis for choice among the options for the decision maker and the public.

### **2.2 History and Process Used to Formulate the Alternatives**

Alternative 2 and Alternative 3 were developed to meet the needs and objectives of the proposal described in 1.3 and 1.4. Alternative 2 was the initial proposed action. Alternative 3 was identified during the analysis process. It meets the purpose and need for the project and is an OHV travel management approach used by some National Forests. The no-action alternative (Alternative 1) is required by regulation and provides a baseline of data for the analysis. Because no unresolved conflicts were identified (1.8.1), there were no major issues to drive the development of additional alternatives.

### **2.3 Alternative Eliminated From Detailed Study - Site Specific Analysis and Designation or Closure of All Routes**

An alternative was considered that would provide final site-specific designation or closure of all existing routes in the "E" areas. Immediate site-specific route analysis on over 500,000 acres would take extensive field review and additional time. Undertaking site-specific analysis of all routes would require a multi-year NEPA process and would delay taking immediate action to stop indiscriminate cross-country OHV travel and the creation of additional user-defined trails. Site-specific analysis and identification of designated routes is still expected to occur, but our first priority is the control of cross-country OHV travel.

### **2.4 Detailed Description of Alternative 1 (No Action)**

Cross-country motorized wheeled vehicle travel would not be prohibited in the "E" travel management areas of the Boise National Forest.

### **2.5 Detailed Description of Alternative 2 (Proposed Action)**

The proposed action would prohibit indiscriminate cross-country travel and limit motorized wheeled travel in the "E" Travel Management Areas to established roads and trails with limited exemptions.

Motorized wheeled vehicles would no longer be allowed to indiscriminately travel cross-country in the unrestricted "E" areas. Instead, motorized vehicles would have to stay on existing routes wider than their vehicle. For example, motorcycles could travel on all established routes. All terrain vehicles could travel on a two-track route, but not a single-track route (Figure 2-1). A pickup truck would not be allowed to travel on a single-track route or a narrow two-track route. No motorized vehicles would be allowed to travel on undisturbed ground (Figure 2-2).

Specifically prohibited cross-country travel is when:

- The passage of motorized vehicles depresses undisturbed ground and crushes vegetation.
- The motorized vehicle maximum tire track width exceeds the road or trail profile.

Specifically allowed travel on established routes and trails is when:

- Travel takes place on designated roads and trails maintained by the Forest Service or other public agency currently open to motorized vehicle travel. These routes are generally constructed and characterized by a road or trail prism with cut and fill slopes and appropriately signed and numbered.
- Travel takes place on clearly evident two-track and single-track routes established with regular use and continuous passage of motorized vehicles over a period of years. Routes are considered clearly evident where perennial vegetation is devoid or scarce. Grassy, vegetated routes are considered clearly evident where wheeled tracks are continuous depressions in the ground evident to the casual observer.



• Figure 2-1 Proposed allowed use



Figure 2-2. Proposed prohibited use

Routes must meet the above specifications for their continuous length. Routes newly created under wet conditions or in wetlands and riparian areas should be easily identified as not meeting the specifications because many portions of the route from its beginning to end would not show signs of regular and continuous passage and many areas would still be fully vegetated with no wheel depressions.

The proposed action would provide the following exemptions. Motorized wheeled cross-country travel would be allowed when necessary for the following purposes:

- Emergencies, such as fire suppression and search and rescue.
- Official Forest Service administrative or authorized activities.
- Access to dispersed campsites and firewood gathering areas within 300 feet of a designated National Forest System road or 100 feet of a designated National Forest System trail if open to motorized use.

Designated National Forest System (signed and numbered) roads and trails would continue to have all currently permitted uses and restrictions.

## **2.6 Detailed Description of Alternative 3**

This alternative would restrict motorized wheeled vehicle travel within “E” Travel Management Areas to existing designated roads and trails only. Indiscriminate cross-country travel and travel on all currently undesignated, user-created routes (roads and trails) would be prohibited. Existing travel restrictions on designated roads and trails would continue. Existing designated routes are defined as those currently included as part of the official Boise National Forest road and trail system and which have been inventoried and mapped and are appropriately signed on the ground.

This alternative would provide the following exemptions. Motorized wheeled cross-country travel would be allowed when necessary for the following purposes:

- Emergencies, such as fire suppression and search and rescue.
- Official Forest Service administrative or authorized activities.
- Access to dispersed campsites and firewood gathering areas within 300 feet of a designated National Forest System road or 100 feet of a designated National Forest System trail if open to motorized use.

## **2.7 Proposed Mitigation Measures and Monitoring**

No project-specific mitigation measures or monitoring was proposed.



## 2.8 Comparison of Effects

• Table 2-1. Comparison of Effects

Objective	Indicator	Alt. 1	Alt. 2	Alt. 3
Slow or reverse the trend of OHV-caused resource damage to soil, water, fisheries, visual quality, and risk of spreading noxious weeds in the “E” areas of the Boise National Forest.	Soil disturbance, erosion, and stream sedimentation	Would increase	Would stay the same	Would decrease
	Stream channel disturbance	Would increase	Number of channel crossings would stay the same, bank and streambed could degrade from increased OHV use	Would decrease
	Fish and fish habitat disturbance	Would increase	Would stay the same	Would decrease
	Fish habitat quality (shade from riparian vegetation, undercut banks, spawning habitat, pools)	Would decrease	Area impacted would stay the same, some decrease due to increased OHV use	Would increase
	Visual quality	Would decline in some areas	Would be maintained	Would improve
	Risk of spreading noxious weeds	Would continue throughout “E” areas	Would be reduced	Would be reduced

• Table 2-1. Comparison of Effects (continued)

Objective	Indicator	Alt. 1	Alt. 2	Alt. 3
Slow the expansion of motorized access in the “E” areas of the Boise National Forest in order to slow or reverse the trend of OHV enthusiasts, most specifically big game hunters, encroaching further and further into historically non-motorized backcountry.	User-created trail development	Would continue	Should end in vast majority of “E” areas	Would end
	Motorized trail and road access	Would increase	Would be maintained at current level	Would decrease
	OHV hunting access	Would increase	Would be maintained at current level	Would decrease
	Stealth hunting access	Would decrease	Would be maintained at current level	Would increase
	Big game security	Would be reduced	Would be maintained at current level	Would increase
	Wildlife disturbance	Would increase	Would decrease slightly	Would decrease

### **3 Affected Environment and Environmental Consequences**

#### **3.1 Introduction**

##### **3.1.1 Contents of Chapter**

This chapter is organized into a resource-by-resource discussion of the affected environment and the effects of the alternatives related to the project objectives (1.8.2) and the minor issues (1.8.3). No major issues were identified (1.8.1). Legal requirements (discussed in detail in 1.9) and Forest Plan Standards (1.5.1) are not discussed in this chapter because the proposed action must meet these requirements, and that information is not relevant to the decision. These requirements simply restrict the design of the proposed action and any other alternatives that may be developed.

Each resource section contains information on the affected environment and the environmental consequences. The affected environment discussion succinctly describes the existing environmental resources of the areas that would affect or that would be affected by the alternatives if they were implemented. This description, combined with the description of the No-Action Alternative in Chapter 2 and the predicted effects of the No-Action Alternative establishes the baseline conditions against which the decision maker and the public can compare the effects of the action alternative.

The environmental consequences discussion includes the direct, indirect, and cumulative effects of all alternatives for the project objectives (1.4) and resources that the project would affect. The effects on the project objectives (3.2 to 3.6) show how the alternatives address the defined needs and objectives for the project. The other resources discussed in this chapter appear because they relate to minor issues identified in 1.8.3. While the effects are minor, these discussions provide disclosure of adverse environmental effects that cannot be avoided in accordance with CEQ regulations. Sections 3.2 and 3.3 contain information related to these minor issues.

This chapter forms the scientific and analytic basis for the summary comparison matrix presented in 2.8. Due to the lack of major issues (1.8.1), the summary matrix contains only a comparison of the effects related to the project objectives.

### **3.1.2 Project Area Location**

The project area is located in the “E” Travel Management Areas scattered across the Boise National Forest (Figure 1-1). The “E” Travel Management Areas total 523,863 acres and occur on the Emmett (213,574 acres), Idaho City (159,039 acres), Mountain Home (145,799 acres) and Lowman (5,363 acres) Ranger Districts.

## **3.2 Recreation and Access**

### **3.2.1 Introduction**

The project has an objective and a minor issue related to recreation and access. The project has a specific objective to slow the expansion of motorized access in the “E” areas of the Boise National Forest in order to slow or reverse the trend of OHV enthusiasts, most specifically big game hunters, encroaching further and further into historically non-motorized backcountry (1.8.2). The minor issue associated with the proposed action is that restricting motorized wheeled vehicle travel to existing routes would affect people who use OHVs to access areas off roads and trails. These people would have to change their activities (1.8.3.2).

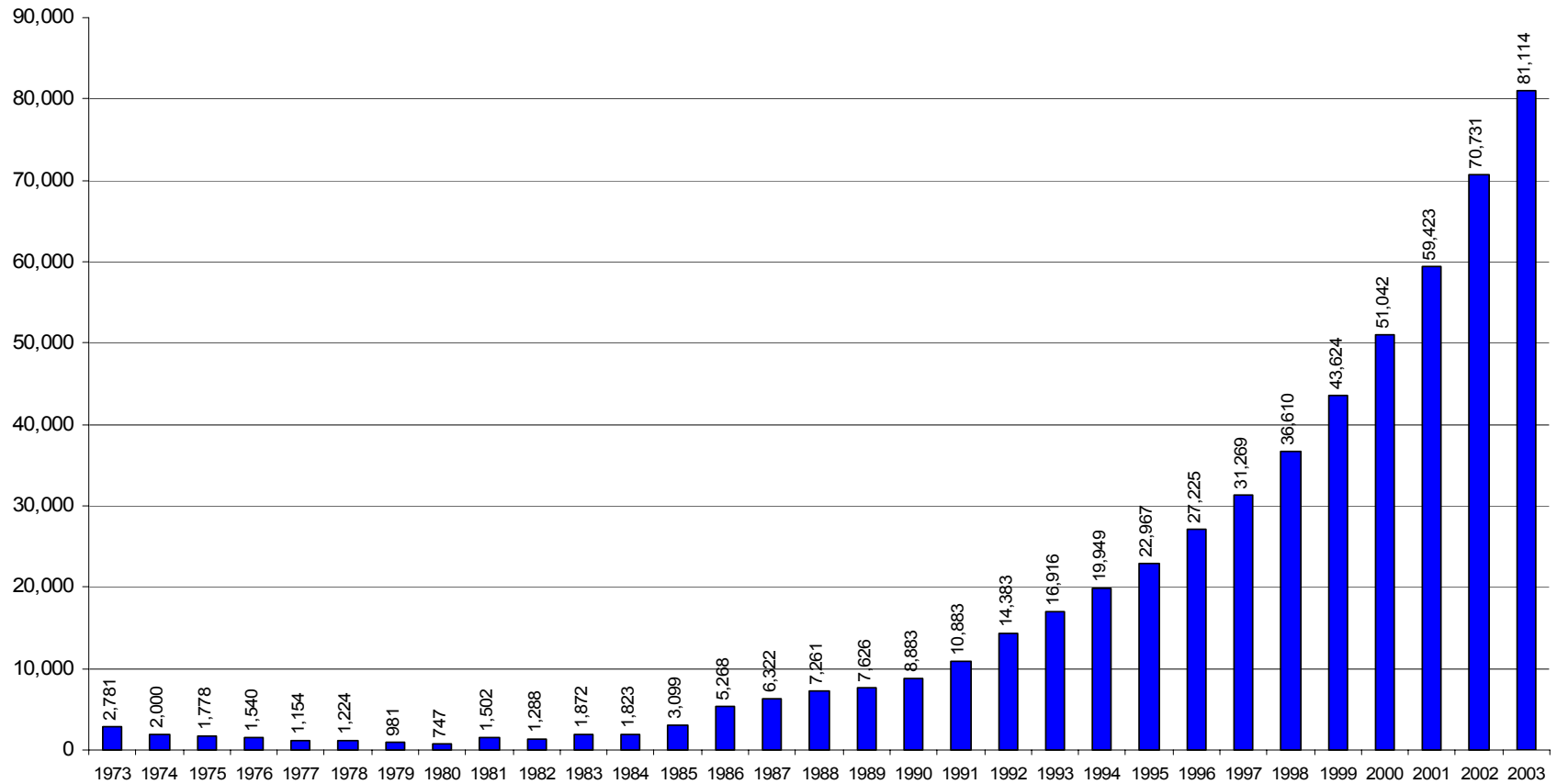
### **3.2.2 Affected Environment**

#### **3.2.2.1 Expansion of Motorized Access**

Currently, motorized access is expanding throughout the “E” travel management areas where terrain allows and people enjoy traveling. Essentially there is a user-created trail development cycle. People ride their OHVs along ridgelines. The repeated travel removes vegetation, leaving a trail apparent. Evidence of a trail leads to heavier repeated use. When people reach the end of the user created trail, some choose to push further to the next ridge...and the trail development cycle continues.

A combination of factors has led to this situation. The Forest's terrain consists of many finger ridges combined with a logging road network that provides efficient road access to ridgetops. The Forest road system provides high quality OHV travel opportunities as well as opportunities to access routes that are not part of the designated Forest Service road and trail system. Forest visitors will commonly park along National Forest System roads, unload an ATV or motorcycle and then travel along a mix of NFS roads, NFS trails and user-created routes. Often the NFS designated roads and trails will pass by fairly gentle ridges that appear rideable. In areas that have been logged, skid trails and jammer landings can be evident on ridges. Old sheep driveways and game trails can also be evident along ridgelines. All of these can provide attractive places for riders to leave the road and potentially develop a trail.

In addition to the numerous access points, the number of OHVs and the capability of the machines have been increasing. The number of all terrain vehicles and motorbikes registered in Idaho has increased greatly, with the steepest increase in numbers occurring during the past 10 years (see Figure 3-1). Much of this increase is due to increasing popularity of ATVs. Improvements in technology have led to ATVs that are stable and powerful, making them popular for family-oriented recreation as well as utility purposes. The climbing ability and numbers of ATVs are probably the most influential factors that have led to the accelerated trail development cycle apparent today.

**Idaho Off-Highway Motorbike/ATV Registrations 1973-2003**

• Figure 3-1. State of Idaho Motorbike and ATV Registrations

Full-size, 4-wheel drive vehicles and motorcycles have less influence on trail development, but do have some effect. Sport utility vehicles and 4-wheel drive pickups capable of off-road travel have increased in numbers during the past 20 years. They are commonplace in many households that previously used station wagons, vans, and sedans for transportation. While most people who own these vehicles do not take them off designated roads, some do seek out challenging off-road driving. It is not uncommon to see pickups in cities covered in mud, indicating that they were used in a manner that may have damaged vegetation, soils, or native road surfaces. The number of off-road motorcycles has increased somewhat. Motorcycles require greater skill and strength to operate effectively and safely off of established travelways than ATVs and 4-wheel drive vehicles. Given that, most casual motorcycle riders are much more limited on what type of terrain they can operate on than ATVs.

While any activity that involves traveling off designated roads and trails can result in trail creation, much of the trail creation associated with OHV use in the “E” areas appears to be the result of hunter travel. Searching for game provides far greater incentive to push further over the next ridge than trail riding for pleasure or other recreation activities. Hunters who use OHVs enjoy using them because they can cover distances with much less effort than hiking. They can also retrieve harvested big game with far less effort than packing it out on foot.

Over time this has led to conflicts within the hunting community. For many OHV hunters, the use of OHVs has become an integral part of their hunting experience. They like to ride and hunt, and getting there can be half the fun. Riding motorcycles and ATVs to hunting areas provides a lot of enjoyment (and for hunters who fail to find any big game, the ride into the hunting area may be the highlight of the hunting experience).

Riding ATVs and motorcycles deep into backcountry areas can be in direct conflict with stealth hunting. A stealth hunter may spend hours tracking game on foot, scoping out areas that game congregate, and waiting in areas that big game travel or congregate. If an OHV hunter rides by where a stealth hunter is tracking or waiting for game, the stealth hunter may feel that the OHV hunter is scaring away the game and that the stealth hunter’s careful preparation has been wasted.

### 3.2.2.2 Cross-country Travel

Cross-country motorized wheeled vehicle travel is currently allowed in the “E” travel management areas. While it is discouraged, people may travel cross country so long as they do not cause resource damage, which is prohibited by 36 CFR 261.13 (h). Common activities that could involve cross-country motorized travel include the following.

- work done by Forest Service employees, contractors, or permittees
- campsite access
- big game hunting and game retrieval
- fuelwood cutting
- search and rescue
- law enforcement
- riding for recreational challenge and/or pleasure

Most OHV travel occurs on existing routes or designated roads and trails. A survey of registered ATV/motorbike owners and licensed hunters showed that few travel cross country (Sanyal 2002).

Several comments received on this project indicated that many of the respondents use their OHVs only on existing routes and designated roads and trails.

It is likely that some people do not understand that cross-country motorized wheeled vehicle travel is allowed in the “E” travel management areas and how that differs from the rest of the Forest. In areas without signs or barricades, visitors likely assume intuitively that existing route use is permitted and that traveling cross country (potentially disturbing vegetation and soil) is not permitted or at least is not desirable. With all of the public information efforts toward encouraging people to stay on designated routes in other areas, and the Tread Lightly campaign to encourage people to stay on existing trails and prevent resource damage, some people may not realize that cross-country travel is actually permitted in the “E” areas. The Forest visitor map does not clearly state that cross country travel in the “E” areas is allowed. It describes cross country travel as “discouraged”.

Law enforcement efforts are generally concentrated in areas that have well defined travel restrictions that are clearly posted on the ground. This provides little incentive for OHV riders to carefully research the travel management restrictions of the areas they are visiting.

### **3.2.3 Effects of Alternative 1 (No Action)**

#### **3.2.3.1 Expansion of Motorized Access**

The user created trail development cycle would continue. These trails would extend further and further into areas that traditionally did not receive motorized use. Over time OHV users would consider the extensive trails essential to their activities.

Conflicts between OHV hunters and stealth hunters would increase. Stealth hunters could be displaced from areas with increasing OHV hunting. Feeling chased out of hunting areas, they may push for more restrictions on OHV use. This could lead to Idaho Fish and Game placing restrictions on OHV hunting in game management units in the “E” areas.

The increased motorized access could increase big game vulnerability (3.4.2.2). Ultimately, this could lead Idaho Fish and Game to reduce hunting permits in the game management units in the “E” areas to maintain big game populations and bull/cow ratios.

#### **3.2.3.2 Cross-country Travel**

Cross-country travel would continue for the same purposes listed in 3.2.2.2. Overall, the amount of cross-country travel in the “E” areas is not expected to change dramatically in the near future. The trend of increasing numbers of OHVs could potentially lead to an increase in cross-country travel in the “E” areas. However, some people who have traveled cross country in the past may choose to stay on roads and trails due to increasing public awareness of the potential resource damage associated with cross-country travel. Others may come to the “E” areas specifically to find opportunities for cross-country travel due to the declining number of areas where cross-country travel is allowed.

### **3.2.4 Effects of Alternative 2**

#### **3.2.4.1 Expansion of Motorized Access**

This alternative should end the user-created trail development cycle in the vast majority of the “E” areas. Successful implementation would depend on continuing public information so that Forest visitors clearly understand that they must stay on existing trails in the “E” areas and exactly how “existing trails” are defined. Once in place, the restriction to stay on existing routes would likely cause heavier use on some existing routes. Others that barely meet the definition may fade away because

they don't receive enough use to maintain adequate width to meet the definition. Trails that show disturbance and use, but don't currently meet the definition of existing trails should gradually revegetate depending on their location.

Restricting wheeled motorized vehicles to existing routes would have pros and cons to both OHV hunters and stealth hunters.

The OHV hunters would maintain motorized access on existing routes. This should ensure that the majority of OHV hunters would have the same network of motorized access in the "E" areas that they use now. They would lose the opportunity to push further into the "E" areas on their machines, and lose their ability to retrieve big game off the existing routes. Some OHV hunters would confine their activities to the existing routes. Over time heavier use along the existing routes could diminish hunter success in these areas. Some hunters may choose to park their OHVs and hike for part of their hunting. Some may choose to hunt using other methods or give up hunting altogether.

Stealth hunters using areas away from existing routes should not be bothered by OHVs entering their hunting areas while they are hunting. Assuming that OHV hunters abide by the restrictions, areas without existing routes would continue to be available in the future for stealth hunters so that favorite hunting spots would not be "lost" to new trails and OHV traffic. Crowding in some areas could become a problem due to hunter numbers increasing or OHV hunters changing hunting methods.

If the restrictions on cross-country travel decrease the need for Idaho Department of Fish and Game to restrict hunting or big game tag numbers, both OHV hunters and stealth hunters would benefit.

#### 3.2.4.2 Cross-country Travel

People who use OHVs to access areas off roads and trails would have to change their activities with limited exceptions (2.5). Some OHV hunters would have to change their activities related to cross country travel for access and game retrieval (3.2.4.1). People who ride OHVs cross country for the challenge would no longer be able to do this in the "E" areas. They would have to find other places to pursue this activity. There are a wide variety of activities potentially affected by a restriction against cross-country motorized wheeled vehicle use. In some cases, people could find another way to pursue their activity (travel on foot or horse, haul gear with a hand cart, etc.) In other cases people would cease the activity or change the location where they pursue the activity.

This alternative would provide for a more consistent policy across the Forest in that cross-country travel would only be allowed for a limited number of exceptions Forest-wide (2.5). Campsite and fuelwood access would be the same as the other areas on the Forest. Emergency activities and work activities in the National Forest that involve OHV use would continue. Forest visitors would be more likely to understand the Forest travel management policy. Prohibitions on cross-country travel should be easier to enforce than trying to enforce CFRs related to resource damage. It is very difficult to prove who caused resource damage and when it happened.

### 3.2.5 Effects of Alternative 3

#### 3.2.5.1 Expansion of Motorized Access

This alternative would end the user-created trail development cycle by restricting motorized wheeled vehicle use to designated roads and trails. This would decrease the amount of OHV access available to the public, not only in terms of the miles of trail and road provided by the established routes, but also in terms of destinations available to people who use OHVs. User-created routes would narrow over time, and some could disappear altogether depending on continued foot, horse, bicycle or big game use.



Under this alternative there would be approximately 1,462 miles of designated road and 199 miles of designated trails would be open year round or seasonally to at least one kind of motorized use in the "E" areas. Approximately 717 miles of road are open for all vehicles. Approximately 347 miles of road are maintenance level 1 roads gated or barricaded, but with no formal closure order. Where terrain permits OHVs to go around gates or barricades, these roads could be used for OHV access. Approximately 223 miles of road are open to all vehicles for 2 to 3 months a year. Approximately 175 miles of road are open to ATVs and motorcycles, but not full-size vehicles. There are approximately 24 miles of trails designated for ATVs and motorcycles and 95 miles of trails designated for motorcycles.

Restricting motorized wheeled vehicles to designated roads and trails would cause a noticeable reduction in motorized access. While the amount of user-created routes is unknown and varies considerably from area to area, a considerable amount of OHV use occurs on them, especially in the vicinity of campgrounds, dispersed campsites, small towns, rural subdivisions, and motorized trails. These kinds of areas do not represent the problem of expanding motorized access, but would have to be closed to motorized use immediately under this alternative. The areas could be signed and are more patrollable than more remote areas. Due to the number of people affected, there would likely be public pressure to analyze these areas first and reopen them as soon as possible.

Restricting motorized wheeled vehicles to designated routes would have noticeable adverse and beneficial effects to hunters.

The OHV hunters would find their OHV travel noticeably restricted. While the actual mileage of user-created routes in the "E" area is unknown, many hunters have grown accustomed to using them and would have to alter their hunting areas or methods in response to this restriction. This can be distressing, especially for individuals who have developed traditions with family and friends. Having to change hunting spots, find a place that accommodates a group's particular hunting style, learn the terrain, etc. takes a considerable amount of effort, often with less hunting success during the first year or two. There could be crowding in areas with motorized access and more frustration and conflict for a few seasons as numerous hunters adjust to the changes in motorized access.

Stealth hunters would find an increase in the areas available to hunt without disturbance from OHV hunters. In some cases, stealth hunters could regain some of their traditional hunting areas that they previously "lost" to OHV hunters. Overall, stealth hunters would find greater acreage available with less hiking to pursue their activities. Some OHV hunters may change their hunting style to stealth hunting. This could cause crowding in some areas and frustration until hunters adjust to the change.

#### 3.2.5.2 Cross-country Travel

People who use OHVs to access any areas off designated roads and trails would have to change their activities with limited exceptions (2.6). While the effects are similar to Alternative 2, OHV use would be restricted to fewer roads and trails in a smaller, overall area. Some OHV hunters would have to change their activities related to cross country travel for access and game retrieval (3.2.5.1). People who ride OHVs cross country for the challenge would no longer be able to do this in the "E" areas. They would have to find other places to pursue this activity. There are a wide variety of activities potentially affected by restricting OHV use to designated roads and trails. In some cases, people could find another way to pursue their activity (travel on foot or horse, haul gear with a hand cart, etc.) In other cases people would cease the activity or change the location where they pursue the activity. It would be much more difficult to reach remote areas that people currently access through a mix of OHV travel on user-created routes and cross-country travel.

This alternative would provide for a consistent policy across the Forest in that cross-country motorized wheeled vehicle travel or travel on user created routes would only be allowed for a limited number of exceptions Forest wide (2.6). Campsite and fuelwood access would be the same as the other areas on

the Forest. Emergency activities and work activities in the National Forest that involve OHV use would continue.

Forest visitors would find it easy to learn and remember the Forest travel management policy. This alternative would restrict motorized wheeled vehicle travel to designated routes only, making the entire Forest closed to OHV travel except for roads and trails designated for that use. Signing and/or available maps would become critical for Forest visitors in order to validate which routes are actually designated and could be used. Forest visitors would have greater incentives to protect road and trail signs and reporting any problems with signs to the Forest Service. This alternative would restrict OHV travel to a generally well-defined network of roads and trails, which would be efficient for law enforcement.

### **3.2.6 Cumulative Effects**

#### **3.2.6.1 Cumulative Effects of Alternative 1**

Over time the trail development cycle in the “E” areas could lead to a vast network of user created trails. Dealing with a larger problem in the future would probably necessitate considering greater restrictions on OHV use than are proposed with this project. Programmatic or blanket restrictions such as restricting OHVs to designated NFS roads and Idaho Department of Fish and Game reducing tag numbers or restricting OHV hunting practices in the “E” areas would be more likely to occur. Subsequent travel management planning projects would be more expensive because there would be more user-created trail miles to analyze. Depending on the trail locations, there could be more trail rehab needed, as well.

Continuing to allow off-route motorized travel in the “E” areas is inconsistent with public awareness campaigns that stress staying on roads and trails and travel management actions in other areas that restrict motorized use to existing and/or designated roads and trails. Allowing the use implies that it is acceptable and could cloud public perception on what is responsible OHV use. This could adversely affect programs promoting ethical OHV use and areas where off-route vehicle travel is prohibited.

#### **3.2.6.2 Cumulative Effects of Alternative 2**

This alternative combined with the various public awareness campaigns and travel management actions taken in other places is likely to change OHV users' behavior and expectations both in the “E” travel management areas and beyond. The message that cross-country OHV travel is prohibited and that OHVs must stay on trails is simple and makes intuitive sense. It is consistent with the Tread Lightly campaign. As public awareness increases, staying on trails would become universally expected behavior among OHV users in the “E” areas. Having the Forest's travel management policy consistent with what OHV user groups consider ethical OHV use provides support to their programs, as well.

Area OHV users may choose to stay on trails when they visit other areas. News of this project is expected to reach numerous OHV owners. Many people who live close to the Boise National Forest also spend time on other National Forests, Bureau of Land Management lands, and State of Idaho lands.

#### **3.2.6.3 Cumulative Effects of Alternative 3**

This alternative combined with the various public awareness campaigns and travel management actions taken in other places would have effects similar to Alternative 2 in terms of behavioral changes. Reduced OHV access on NFS lands could lead to heavier use on other federal, state, and private lands nearby. Due to the noticeable reduction in motorized access in the “E” areas, this alternative could lead to greater pressure from OHV users to accelerate project planning to reopen existing routes or develop new OHV trail networks. Future actions involving restricted OHV access could cause

greater resistance from OHV users due to the perception that they would lose a substantial amount of access with the alternative. If route signing becomes an expectation among OHV users on NFS lands, there may be pressure on other agencies to sign heavily, as well.

### **3.3 Soil, Water Quality, and Fish Habitat**

#### **3.3.1 Introduction**

This project has specific objectives to slow or reverse the trend of OHV-caused resource damage to soil, water, and fisheries (1.8.2). The following analysis was done to determine how well the project meets these objectives.

#### **3.3.2 Affected Environment**

##### **3.3.2.1 Soils, Erosion, and Sedimentation**

Cross-country motorized travel can displace soil and cause sediment to enter streams. The “E” Travel Management Areas are located within nine 4th Field HU’s (Hydrologic Unit) in the Pacific Northwest Region. Most of this area is situated in the Idaho Batholith, which has cohesionless coarse-grained soils that are highly erodible, especially when disturbed (Ketcheson and Megahan, 1996). Cross-country travel over an unconsolidated surface loosens and displaces soil material, making it more susceptible to being washed into the drainage network.

Land disturbances on unstable, steep slopes can alter the surface and subsurface drainage of water across landscapes and increase the potential to initiate landslides. According to the Boise National Forest Landslide Prone map developed using the GIS-based model SINMAP, approximately 46,875 acres or approximately 9 percent of “E” Travel Management Areas are designated as landslide prone. (These areas have not been field verified.) Trails created by OHVs that traverse mountain slopes remove vegetation cover and can channel and concentrate water on the trail, increasing the risk of landslides. Vegetation cover influences the amount and intensity of rainfall that reaches the ground surface and the amount of water stored in the soil. Increasing the water content of the soil by decreasing the amount being respired by vegetation increases the weight of the soil and the landslide potential. The OHV trails can also intercept runoff, concentrating it and saturating small areas.

Increasing use of OHVs has resulted in expanded areas of concentrated, repeated, and regular cross-country motorized use. The initiation of trails across unspoiled landscapes can compact the surface soil layers even if it does not strip the area of surface vegetation. This surface disturbance destroys the soil structure and decreases the available pore spaces between sediment grains, decreasing water infiltration. When compared to a professionally designed and constructed trail, user-created travel ways are often poorly located, too steep, and lack adequate drainage. As water infiltration into the soil decreases, water concentrates on the surface of the trail, allowing ponding to occur. This increase in concentration decreases the frictional forces acting on the water, allowing it to move faster, thereby increasing the erosion potential and sediment transport capacity of the water (Figure 3-2).

Increases in soil disturbance and displacement and the transport of soil by water to stream channels increases soil deposition within streams. These deposits can have adverse affects by altering the biological and physical characteristics of streams and lakes. Sediments fill up spaces within streambeds causing changes in channel morphology, flow, water quality and fish habitat. During high flows, these sediments can be carried downstream, causing problems within entire stream reaches and not just at the source.



• Figure 3-2. Concentration of flow and sediment down an OHV trail.

### 3.3.2.2 Stream Channel Disturbances and Sensitive Habitats

Stream crossings, formed when OHVs traverse streams, remove vegetation and create vectors for surface runoff and sediment movement directly into streams. When the vegetation is removed, the banks become more susceptible to erosion and can slough off into the channel. During times of high stream flows the bare banks are easily eroded, leading to channel downcutting and degradation. The tracks of OHVs act as new channels, crisscrossing the landscape and concentrating water. When these tracks cross a stream, it is an open outlet for the water and sediment to enter (Figure 3-3). In some instances the trail can intercept the stream and divert the water onto the trail (Figure 3-4). In this picture, a stream crossing above is diverting water out of the channel and down the trail causing the water to run along side the natural channel.

Cross-country use can impact sensitive habitats, such as wetlands, meadows, and riparian areas. These habitats are very productive and valuable parts of the ecosystem. They often act as transition zones between the aquatic and upland areas increasing benefits such as fish and wildlife habitat, erosion control, forage, late season streamflow, and water quality. Wetlands and meadows provide benefits by acting as reservoirs within the watershed regulating late season streamflow and increasing groundwater recharge. Since these areas generally have saturated soils, they are more vulnerable to soil compaction and rutting, making revegetation a difficult task. The riparian area is the section of land and water forming a transition from aquatic to terrestrial ecosystems along streams and lakes. It supports high soil moisture and a diverse assemblage of vegetation and performs important ecological functions. It acts as a filtering system, stabilizes banks, and regulates stream water quality. The vegetation provides a buffer for the stream by slowing down water and settling out sediment and nutrients. Strong root masses decrease surface erosion by stabilizing the streambanks and are able to absorb floodwater without degrading during high stream flows. The OHV travel along streams directly impacts bank stability by breaking down banks and increasing sedimentation. The vegetative cover provides a thermal break from radiant sunlight reaching the water surface increasing water temperatures and reducing oxygen levels.



- Figure 3-3. Stream crossing, allowing sediment to enter stream.



- Figure 3-4. A stream crossing above has diverted part of stream down the OHV trail.

Eight of the streams located in the “E” Management Areas are on the State of Idaho and United States Environmental Protection Agency 303(d) list of impaired waters. These streams have been determined to be water quality limited. This means that the stream does not support its beneficial uses or it exceeds water quality standards. Table 3-1 lists the 303d listed streams in watersheds containing “E” Management Areas, the hydrologic unit code (HUC), and the pollutant for which the stream is listed. As indicated by the table, sediment and temperature are major pollutants in the streams listed. Current management practices are increasing the problem, by allowing for soil displacement and sedimentation in streams and allowing removal of riparian vegetation.

• Table 3-1. 303(d) Listed Streams within watersheds containing “E” Management Areas

Stream	HUC	Pollutant
Bennett Creek	17050101	Unknown
Camas Creek	17040220	Sediment
Clear Creek	17050123	Sediment
Deer Creek	17050113	Sediment
Lime Creek	17050113	Temperature
Little Canyon Creek	17050101	Flow Alteration; Sediment; Temperature
Macks Creek	17050112	Sediment
Middle Fork Payette River	17050121	Sediment, Temperature
Mores Creek	17050112	Temperature
North Fork Payette River	17050123	Flow Alteration; Habitat Alteration; Nutrients; Sediment; Temperature
Round Valley Creek	17050123	Sediment
Smith Creek	17050113	Sediment, Temperature
South Fork Boise River	17050113	Sediment
South Fork Payette River	17050120	Sediment

### 3.3.2.3 Fish and Fish Habitat

Unmanaged OHV travel can directly affect fish species during critical life stage periods. Fish harassment can occur during critical spawning periods if trails are adjacent to or cross spawning habitats. Stream crossing can directly affect fish by crushing redds, area containing fish eggs, in spawning reaches. Spawning periods for bull trout occur during the fall when OHV use is generally the highest, therefore use of trails and trail crossings can affect spawning and egg survival.

Riparian vegetation plays an important role in providing ecological functions for fish habitat. Loss of riparian vegetation reduces the ability for riparian areas to protect or provide for desired fish habitat. Stable banks provide hiding places, areas of cooler temperatures, and stream channel integrity for fish. The most obvious existing impacts of cross-country motorized travel to fish species and habitat is mechanical damage of the stream habitat. This often includes disturbances to streamside vegetation, stream banks, channel morphology, water quality, and fish harassment.

Off-highway vehicle travel along or across streams directly impacts bank stability by breaking down steep and undercut banks, increasing sedimentation. Undercut banks frequently serve as important components for fish species, providing hiding places from predators and areas of cooler temperatures. Erosion alongside streams also reduces bank angle, broadening streams, which increase solar radiation influence. Unmanaged stream crossings reduce vegetation and provides direct sediment delivery to fish habitat. These stream crossing can be the most direct effect to fish and fish habitat from OHV use.

Riparian vegetation disturbance has the potential to affect stream temperatures during summer and winter periods. Cold-water fish species, such as the bull trout, have very specific temperature regimes for spawning, incubation, and rearing stages. The reduction in vegetative cover can increase summer water temperatures beyond an optimal range for a species or sensitive lifestage. Healthy vegetation plays a key role during winter by providing a thermal buffer to the stream. Without this buffer anchor ice can form within the stream causing direct mortality to fish species during winter periods. Changes in the temperature regime can affect the presence of fish species in a drainage or watershed.



Streambank erosion and vegetation removal increase sediment delivery to streams, which increase fines to spawning habitat, interstitial spaces, and pools (Figure 3-5). Fine sediments in spawning habitats have been shown to significantly reduce egg survival and fry emergence. Salmonid species require clean gravels for successful egg incubation and fry emergence (Tappel and Bjornn 1983, Irving and Bjornn 1984). Fine sediments that fill interstitial spaces and pools reduce instream cover and overwintering habitats. Juvenile fish use interstitial spaces and pools for predator avoidance and as thermal refugia during winter. When pools become shallow and interstitial spaces are filled overwintering capacity of a stream is reduced.



• Figure 3-5. Fine sediments in streams reduce fish spawning and wintering habitat.

### **3.3.3 Effects of Alternative 1 (No Action)**

#### **3.3.3.1 Soils, Erosion, and Sedimentation**

Under this alternative soil disturbance, erosion and sedimentation are expected to increase. The increasing popularity of OHV use in recent years has led to increases in cross-country travel within the “E” Management Areas. It is anticipated that the trend of OHV use in these areas would continue to rise. This leads to increasing soil disturbance and decreasing vegetative ground cover over a larger area and greater concerns for erosion and sedimentation.

Since the soils within these areas are naturally erodible, continued development of user created routes would increase the risk of erosion. Off-highway vehicles can damage vegetation and displace plants as they cross the landscape. The loss of vegetated ground cover makes the area more susceptible to erosion.

This can make small rain and flooding events erosive, stripping away the layers of soil. The top layer of soil can be the most important for revegetation. It contains nutrients needed to grow plants and seeds from the native plants that once grew in the area. Allowing OHVs to travel anywhere in an area gives the opportunity to damage whole landscapes. With the loss of vegetation the landscape surface becomes unstable and more erodible. Most management activities require mitigations or the use of erosion control methods to help lessen the effects of that activity on the ground. However, there is little that can be done to help lessen the effects of cross-country travel by OHVs. Continuing to allow cross-country travel to occur on National Forest lands would only cause further land degradation.

Sedimentation is expected to increase in this alternative. Surface erosion from roads is the dominant erosion process in the Idaho Batholith (Ketcheson and Megahan, 1996). Cross-country travel increases the area of soil disturbance and soil compaction and increases the number of tracks that can channel surface water flow. It also increases the amount of displaced sediment readily available to be carried to stream channels. This is especially true when cross-country travel occurs on areas designated as landslide prone. Since there would be no regulation on the creation of new trails, this alternative would potentially increase the rate of sedimentation and the sediment load into streams.

#### 3.3.3.2 Sensitive Habitats and Stream Channel Disturbances

This alternative could pose detrimental effects to sensitive habitats and stream channels. Allowing users to traverse streams and enter these habitats without trail designation gives them the ability to damage miles of stream habitat within the "E" management areas. If a trail becomes impassable due to rutting or soft soils, it would be abandoned and a new one formed. The abandoned sections can recover naturally, but the impact of use would have altered the soil and hydrologic characteristics of the site. This can lead to a change in the composition of vegetation able to grow in the area. Once recovered these sites may be used again, but are usually more sensitive to impacts than undamaged sites.

Increases in the number of stream crossings are another concern with this alternative. Off-highway vehicle users would be able to traverse streams at any location, creating more points of direct runoff into the stream. As previously discussed, the runoff from OHV trails is full of sediment. More stream crossings lead to more areas for sediment to enter the stream and therefore increased sediment yields to streams. The increased sediment yields can increase the rate of stream degradation.

#### 3.3.3.3 Fish and Fish Habitat

This alternative does not propose any change in management activities. The trend of increasing OHV use would cause an increase in management-induced effects to fish from expanding OHV use and increased user-created trails. The increasing popularity of OHV use in recent years has led to increases in cross-country travel within the "E" Management Areas. It is anticipated that the trend of OHV use in these areas will continue to rise. This leads to increasing disturbance to fish and fish habitat over a larger area and greater potential for impacts to fish from OHVs.

This alternative can increase direct detrimental effects to spawning fish and egg survival. Allowing OHV travel anywhere within "E" Management Areas would increase the number of trails and stream crossings across the Boise National Forest. The expected increase in OHV numbers and expansion of user-created trails to new areas may cause increased fish harassment during spawning periods and disturbance of eggs in redds.

The majority of OHV use occurs in the fall in conjunction with big game hunting seasons. This corresponds to bull trout, kokanee, and brook trout spawning periods. With OHV use high during this period the potential to disrupt spawning fish or destroy redds is an increasing concern especially for threatened and endangered species. This alternative provides the greatest potential for increased OHV use to have the greatest direct impacts to fish through harassment of individuals or destruction of redds.

With this alternative fish habitat disturbance would continue to increase across "E" areas. The expected increase in OHV use and expansion of user-created trails to new areas is expected to have additional impacts to riparian vegetation, streambank stability, and sediment delivery. Areas currently disturbed would continue to be affected and areas not affected may be threatened by the increase of OHV use and user-created trails.



Riparian vegetation would be increasingly impacted with this alternative, altering riparian processes for healthy fish habitat. As riparian vegetation is affected the riparian zone loses its ability to provide shade and buffer capacity from upland areas. When stream shade is reduced, water temperatures increase during summer periods and decrease during winter periods. As water temperatures are altered, species, which have specific requirements for spawning and other life stages, may not be able to occupy historic areas. High summer and spawning temperatures reduce the success of spawning fish and can reduce the availability of habitat. During the winter loss of vegetation can increase the risk of anchor ice formation on stream substrates. Anchor ice formation usually only occurs in areas of extreme disturbance and can kill juvenile fish and eggs within redds.

Streambank stability would continue to be impacted by OHV use and user-created trails. Areas not disturbed would become impacted by the expansion of OHV areas. As streambanks are damaged, bank stability is reduced by the destruction of vegetative root structures, reduction in undercut banks, and over-widened stream channels. As vegetation loses its ability to support streambanks, channels become wider, undercut banks break down, and sediment enters the stream. When these occur fish habitat is reduced or lost. Undercut banks provide important habitat for fish to escape predators and solar radiation. Over widened stream channels become shallow reducing areas available for fish and increasing the solar radiation to the water, increasing summer water temperatures.

The disturbance to riparian areas and streambank stability from OHV use causes accelerated erosion and increased fine sediments to stream channels from riparian and upland areas. Off-highway vehicle use in riparian zones reduces the sediment buffering capacity and increase sediment delivery to stream channels. Healthy riparian areas are responsible for filtering sediments, chemicals, etc. from reaching water bodies. Off-highway vehicle use and user-created trails on riparian vegetation reduce the ability to act as a buffer to other natural and human-caused disturbances. User-created trails also concentrate surface runoff providing direct sediment delivery to stream channels. As erosion increases fish spawning habitat, interstitial spaces, and pools are reduced. Increased fine sediments reduce spawning success by reducing embryo survival; fill interstitial spaces used by juvenile fish for predator avoidance and thermal refuge; and decrease pool depths reducing over wintering capacity and thermal refuge.

### **3.3.4 Effects of Alternative 2**

#### **3.3.4.1 Soils, Erosion, and Sedimentation**

This alternative would reduce the creation of new routes and keep areas impacted by OHV use at the existing condition. This would decrease the potential area disturbed by continuing cross-country motorized use, thereby reducing the potential for increased erosion and sedimentation. However, all areas that are currently impacted by OHVs would continue to be impacted. Problems that already occur due to user-created trails would continue and become worse depending on the future use of the trails. These problem areas would be site specific and need to be addressed individually.

#### **3.3.4.2 Sensitive Habitats and Stream Channel Disturbances**

Trail widening may become a problem on existing trails because they are not properly engineered. Since the soils are moist, they can become rutted and impassable in sections. This would prompt users to go around the section, increasing the width of the trail at that area. Stream crossings would be kept to ones that already exist, but they may not be able to handle the increased use. This would lead to severely degraded sections at the bank and in the streambed at these crossings. However, if the downstream riparian areas are healthy, downstream effects to stream stability may be minimal.

### 3.3.4.3 Fish and Fish Habitat

This alternative would not reduce the threat of existing trail use on fish harassment and redd disturbance. The potential for harassment of spawning fish and disturbance or destruction of redds would remain in areas with existing trails and spawning habitat. Since the extent of existing trails is unknown, it cannot be determined what magnitude spawning fish and redds may be impacted from OHV use. Due to high OHV use in the fall, fall spawning fish have the highest risk of being impacted.

This alternative would protect spawning fish and redds in areas not currently utilized by OHVs. It isolates the impacts to spawning fish and redds to existing OHV areas and eliminates expansion to undisturbed areas. Some level of protection of spawning fish and redds would be achieved with this alternative by stopping the expansion of OHV use to new areas, but impacts to fish and redds would continue to occur in OHV developed areas.

With this alternative, riparian vegetation, streambank stability and erosion impacts would continue to occur where there are user-created trails. Riparian vegetation, streambank stability, and soils would be protected in areas not currently utilized by OHVs or without user-created trails. This alternative would stop the proliferation of user-created trails to undisturbed areas and stop additional effects to fish habitat from OHV use.

Riparian vegetation adjacent to existing trails would continue to be disturbed by trail use. The extent of disturbances would be limited to adjacent trail areas and is not expected to measurably disturb or destroy riparian vegetation beyond the current disturbance. Summer and winter stream temperatures are not expected to increase or decrease with the continued use of the existing trails. This alternative would stop additional disturbance and fluctuation of stream temperatures to areas without OHV use and user-created trails. The temperature regime should continue to provide the status quo for spawning fish and egg incubation.

The impacts to streambank stability should be isolated to existing user-created stream crossings. Current crossing, which are a source of streambank instability, would continue to cause fish habitat problems. It is expected that some destruction of vegetative root structures, reduction in undercut banks, and over widened stream channels would occur with the continued use of existing trails. This alternative would prevent additional crossings and areas of streambank instability in areas without existing trails. The rate and magnitude at which vegetative root structure, undercut banks, and over widened stream channels are increasingly being impacted by OHVs would slow down because the impacts to fish habitat would be limited to existing trails and not expanded to new areas.

Erosion is expected to continue in areas with existing trails. The buffering capacity of riparian areas would continue to be compromised with direct surface runoff to streams from existing trails. These processes will continually add fine sediments to stream channels above natural levels. Increased fine sediment from existing trails will contribute to reduced spawning success by reducing embryo survival; reduce juvenile fish habitat by reducing interstitial spaces, and decrease over wintering capacity and thermal refuge by reduced pool depths. This alternative would prevent these effects from occurring in areas not currently utilized by OHVs or with user-created trails.

### 3.3.5 Effects of Alternative 3

#### 3.3.5.1 Soils, Erosion and Sedimentation

With this alternative, overall soil disturbance and compaction would be lessened and ground cover losses would be kept to a minimal amount; specifically on existing routes. Most of the landscape would be vegetated or in the stages of revegetation and areas of bare soil minimal. The vegetation stabilizes the topography and keeps soil particles in place. During precipitation and runoff events, the vegetation

increases the frictional forces acting on the water. This would slow the water down and disperse it over a large area; which decreases its capacity to carry sediment and cause erosion.

Decreases in soil disturbance, soil compaction and ground cover losses lead to decreases in sediment yields to streams. The structure of trails also influences the quantities and route of sediment yields to streams. Engineered trails are designed to be hydrologically inert, meaning the trails are connected in a way that the movement of water on the trails would not cause negative effects to the watershed. By keeping users on designated and properly engineered trails, the risk of increased sediment to streams is less than on user created trails.

#### 3.3.5.2 Sensitive Habitats Stream Channel Disturbances

Prohibiting cross-country travel, would lead to less soil displacement and sedimentation in streams and would protect riparian areas from future stream crossings. This would reduce the extent of thermal and sediment pollution from these areas and help to restore degraded streams. Impacts to channel morphology and water quality would also be reduced. Healthy riparian areas play integral roles in stream stability. With this alternative, undamaged riparian areas would be protected from future stream crossings. Combining this with the decrease in the rate of sedimentation from the upland areas and an increase in the soils water infiltration capacity; less runoff and sediment would reach streams. Impacts to channel morphology and water quality would be reduced, allowing streams that are currently degraded to begin self-restoration.

#### 3.3.5.3 Fish and Fish Habitat

This alternative would stop the threat of existing user-created trails on spawning fish and redds. The potential to disturb and destroy spawning fish and redds would not occur with user-created existing trails. It could continue to occur on designated trails although designated trail crossing are designed and placed to prevent this from occurring.

This alternative would allow protection and restoration of riparian and stream habitats. Riparian vegetation, streambank stability, and sediment delivery which all contribute to optimal fish habitat would be left to naturally recover from OHV use and user-created trails. Existing trails would continue to contribute to some degrade in fish habitat, but fish habitat would improve in the long-term. In abandoning these trails from OHV use they would be left to recover naturally. Full recovery of riparian and stream habitat may not occur or at least would take a very long time.

### 3.3.6 Cumulative Effects

#### 3.3.6.1 Introduction

Cumulative effects consider the combined impacts of past, present, reasonably foreseeable, and proposed management actions. Current management practices with the "E" Travel Management Areas include timber and vegetation management, grazing, fire suppression, hunting, public vehicle access, fishing, firewood cutting, road maintenance, snowmobiling, hiking, trail riding, mountain biking, and minerals exploration.

#### 3.3.6.2 Cumulative Effects of Alternative 1 (No Action)

Under Alternative 1, it is possible that foreseeable activities would increase sedimentation to streams. As previously stated, continuing cross-country travel in the "E" Areas would lead to more soil displacement, compaction, and sedimentation. Coupling that with the predicted increase in use of these areas, effects due to continuing cross-country use would be even greater. Synergistic effects due to the interaction between activities would also pose watershed issues. Much of the area is or

could potentially be disturbed by OHV use. If other activities that cause soil disturbance and sedimentation also occur within the “E” Management Areas, the total effect would be greater than that which is already occurring.

Under Alternative 1, it is possible that foreseeable activities could impact fish habitat by increasing sediment delivery and riparian vegetation disturbance in addition to what is expected from OHV use. If other activities increase disturbance to riparian areas and increase sediment delivery, increasing impacts from OHV use would mean additional adverse effects to fish and fish habitat.

### 3.3.6.3 Alternative 2

Under Alternative 2, cumulative effects on water quality and total sediment delivery would be dependent upon the current conditions of the existing trails. In the short term there would be little to no change in sedimentation to streams because the trails would remain at the existing conditions and would interact with other activities occurring within the watersheds in the same manner. Long-term conditions would be dependent upon future use of the trails and improvements made to damaged areas. There is a possibility that if trail conditions worsen, the trails could supply more sediment to streams; further degrading water quality. If other management activities within the “E” Areas also cause soil disturbance and sedimentation to occur, the total effect would be greater than is already occurring. If future management activities help to restore damaged areas and improve heavily used trails, long-term effects within the “E” Management Areas would improve.

Under Alternative 2, cumulative effects on fish and fish habitat would be dependent upon the current use of existing trails. There would be minimal improvements to fish habitat because existing trails would continue to cause impacts. If trails are abandoned or become worse with use, changes would either reduce or improve conditions. These changes would only occur in areas with existing trails and the changes would not be seen in new areas. The cumulative effects of other activities and OHV use would be dependent on the future status of the existing trails. If impacts from the trails become worse for fish habitat than other activities that impact those features would cause increased detrimental effects.

### 3.3.6.4 Alternative 3

Alternative 3 would have an overall beneficial cumulative effect within the “E” Management Areas and watersheds. It would reduce effects from OHV use within these areas, which would help lessen effects from other management activities. Areas degraded from past use would be able to re-establish, stabilizing the landscapes. This would reduce any direct effects from OHV use in the management areas. Allowing these areas to stabilize would also decrease effects from other management activities within the watersheds because they won't be as erodible as in the past.

Alternative 3 would have an overall beneficial cumulative effect for fish and fish habitat within the “E” Management Areas. This alternative would reduce effects to fish habitat from OHV use within these areas providing a long-term benefit. Effects from other activities would not contribute to additional effects to OHV impacts to fish and fish habitat.

## 3.4 Wildlife

### 3.4.1 Introduction

This project has a specific objective to slow the expansion of motorized access in the “E” areas of the Boise National Forest in order to slow or reverse the trend of OHV enthusiasts, most specifically big game hunters, encroaching further and further into historically non-motorized backcountry. The

following analysis was done to determine how well the project meets the objective and what the associated benefits are to big game security and wildlife disturbance.

The Biological Assessment and the Wildlife Habitat Analysis Report in the project file contain a systematic species-by-species review. The appendix contains determinations for sensitive species (5.2).

### **3.4.2 Big Game Security**

#### **3.4.2.1 Affected Environment**

Currently OHV users are allowed to travel cross-country indiscriminately in “E” travel management areas, which degrades big game security by providing hunters and Forest visitors entry into previously inaccessible areas. Motorized access is currently expanding in the “E” travel management areas as OHV users develop new trails through repeated cross country travel (3.2.2). This can lead to displacement of big game from critical habitats and lasting impacts on local populations. Once trails become established, the displacement effects to big game may become long term in nature and previously available habitat is no longer suitable. Hunter success may eventually decrease populations enough to force management changes, effectively reducing hunter opportunity in the long term. As long as there are adequate security areas, hunting can occur with only short term effects to population. At a certain point, however, lack of security areas becomes an issue because fewer bull elk and buck deer survive from year to year. Reproduction then declines and fewer young are born. A few big game management units on the Forest show decreasing elk populations based on Idaho Fish and Game surveys, and low mature bull counts are common on the Forest (Hergenrider 2003). While there are many other factors influencing deer and elk, the increasing motorized access in the “E” areas is likely a contributing factor to changing population numbers and composition.

The “E” Travel Management Areas contain diverse environmental conditions that provide habitat for big game species that include black bear, mountain lion, antelope, moose, elk, and mule deer. Environmental conditions that provide habitat vary considerably in these areas. Steep mountains covered with conifer forests are a common element, but areas of gentle terrain and open parkland also exist. At lower elevations, forested environments occur primarily on north aspects while south aspects contain mainly grasses, forbs, and shrubs.

Deer and elk are common throughout the project area and will be the main focus of the big game security discussions. They are present in nearly all environments that offer sufficient forage and security. Moose are not as common but occur in similar environments. Black bear and mountain lion are common and can be found throughout the “E” areas. Antelope are dependent upon sagebrush environments and are found only at lower elevations.

#### **3.4.2.2 Effects of Alternative 1 – No Action**

This alternative would continue to degrade big game security in the “E” travel management areas. Continued expansion of user created trails and indiscriminate off-trail motorized use would reduce security areas available to big game.

The trend of trail expansion and subsequent degradation of big game security would likely continue until most driveable terrain has some kind of motorized access utilized by hunters. This situation could make it harder to manage big game populations. Reduced security habitat in the “E” areas could contribute to a trend of bull numbers and population numbers going down.

#### 3.4.2.3 Effects of Alternative 2

This alternative would maintain big game security in the “E” travel management areas in close to the current condition. Prohibiting cross-country motorized travel would slow or end the expansion of existing routes and would maintain current levels of disturbance to big game. It would slow or end the trend of trail development, thereby decreasing the rate of security habitat loss while maintaining harvest averages at current levels. By halting the trend of expanding user created trails, indiscriminate off-trail use, and associated potential effects, big game would likely benefit in both the short and long term. While the direct effects would be negligible in the short term, the changed trend would be a positive long-term benefit.

#### 3.4.2.4 Effects of Alternative 3

This alternative would improve big game security in the “E” travel management areas. Under this alternative, potential negative effects to big game from OHV use would be limited to designated roads and trails only. This would be a net decrease in potential disturbance over current levels and would be a beneficial effect in both the short and long term. It is unknown how much of a change to big game security this would have and whether or how much this would subsequently affect population numbers and composition. However, it would actually reverse the current trend and noticeably improve big game security immediately.

#### 3.4.2.5 Cumulative Effects

Actions that affect big game security include all activities that affect hiding cover or hunter access. Forest Service management activities are designed to avoid substantial adverse effects to big game security based on Forest Plan standards and guidelines. Timber harvest and fuels treatments remove hiding cover and road construction increases access if roads are left open. Trail construction can also increase access. Vegetation management projects have occurred in the “E” areas as well as nearby State and private lands. It is expected that OHV use will continue to increase on nearby private and state lands.

Under Alternative 1, the trend of big game security being degraded is expected to continue. While other activities occurring or planned in the area are not expected to cause a lot of adverse effects of big game security, they are not expected to improve it noticeably, either. Trail development associated with cross-country motorized use would continue to be a major factor in big game security losses. Under Alternative 2, big game security would stay fairly static with minor changes where other activities take place. Under Alternative 3, there would be a noticeable improvement in big game security. This improvement would likely outweigh any minor adverse effects caused by Forest Service management activities.

### 3.4.3 Wildlife Disturbance

#### 3.4.3.1 Affected Environment

Under current management, OHV users are not limited to designated trails but are allowed to travel anywhere within “E” travel management areas. This can have a direct ecological effect on wildlife by disturbing, injuring or killing wildlife. All wildlife species can experience disturbance from motorized vehicles. Many bird species are ground nesters, and OHVs traveling cross country can crush eggs or kill nestlings. Species of interest potentially disturbed by OHVs include carnivores, big game, upland game, migratory birds, species designated as sensitive, as well as those listed under the Endangered Species Act.

Disturbance to wildlife from vehicles and OHVs is presently occurring where travel is permitted on the Forest. Disturbance is magnified in areas where OHVs are deliberately traveling off-road/trail and cross-country. This type of travel is currently allowed on approximately 523,863 acres on the Boise National Forest. The extent of this disturbance is dependent on numerous factors that include time of year, time of day, type of habitat, method of travel, size of vehicle, number of vehicles, wildlife species, and other factors.

Disturbance and harassment from OHVs is especially detrimental in the spring during nesting and reproduction and during summer while foraging. Off-highway vehicles can cause disruption of wildlife breeding and nesting habitats, particularly of vulnerable species, resulting in loss of young. In addition, the noise of OHVs can directly impede the ability of wildlife to find prey, avoid predators, and successfully reproduce. Off-highway vehicle noise can also dangerously disorient wildlife in some cases. Disturbance also significantly affects wildlife in the winter when wildlife are already severely stressed by weather conditions and the lack of food. While inactivity provides an energetic advantage for animals exposed to cold, forced activity caused by human disturbance exacts an energetic disadvantage. Geist (1978) further defined effects of human disturbance in terms of increased metabolism, which could result in illness, decreased reproduction and even death.

Effects on breeding birds during incubation include short term temporary nest abandonment or nest desertion, which results in exposure of the eggs to temperature extremes and predators. Disturbance during brood rearing can result in trampling of eggs or young, young jumping or falling from nests before they are able to fly, and/or separation of young from parents. Upland game birds and cavity nesters are more often influenced by habitat disturbance. Outside of the breeding season, disturbance by humans may cause birds to change their feeding habits, thereby reducing normal food intake (MCTWS 1999).

Response of carnivores to human recreational activities varies widely. Some species like skunks, raccoons, and coyotes tend to thrive in association with human activity. For other carnivores, impacts from human disturbance at den sites, habitat fragmentation by roads and trails, and the consequences of becoming accustomed to humans are growing and can be significant. Several carnivore species that seek secluded areas for production and rearing of young (wolves, black bears, wolverine, fisher, lynx) have been known to abandon den sites when disturbed. (MCTWS 1999).

Off-highway vehicles are noisy, and are likely to disturb big game species in certain situations. The response to disturbance may be behavioral. Changes in behavior can include avoidance, attraction or habituation (where animals get used to the presence of people). Big game can also experience physiological changes, such as stress. Short-term responses to disturbances are often presumed to be of little consequences to big game. However, the stress of repeated disturbance may have detrimental consequences to individual animals by interrupting feeding or breeding behavior, reducing vigor, reducing productivity, and causing death. In the long-term, negative consequences to individual animals may result in lower population levels (MCTWS 1999).

Research shows that areas with fewer roads have more mature bull elk (Leptich 1991). In northern Idaho, biologists monitored three areas of equal size with roughly the same terrain and cover for the presence and density of mature bull elk. One area was heavily roaded, the second had approximately an equal number of roads, but they were closed during hunting season, while the third had no roads.

Table 3-2 displays the research findings.



• Table 3-2. Road Influence on Elk

<b>Roads and Status</b>	<b>% bulls living to maturity</b>	<b>Bulls per 100 cows</b>
Heavily roaded, open during hunting season	5	10
Heavily roaded, closed during hunting season	16	20
Roadless	30	35

Idaho Department of Fish and Game's website states that elk use declines in areas adjacent to roads open to motorized vehicles and that slow-moving vehicles on primitive roads and trails are more disturbing to elk than fast-moving vehicles on highways (Idaho Fish and Game 2004).

Stamps (1987) showed that when located under an open canopy, a simple linear strip of dirt or gravel could function as a physical or psychological hindrance to the movement of some species.

#### 3.4.3.2 Effects of Alternative 1 – No Action

This alternative would increase wildlife disturbance caused by the expansion of user created trails and indiscriminate cross-country OHV use. Continued and increasing disturbance would have a variety of adverse indirect effects including species displacement, reduced habitat use, habitat loss, movement and dispersal barriers, harassment, reduced reproductive success, population fragmentation, increased hunting pressure, and increased human/wildlife conflicts. Effects would vary throughout the "E" areas based on site specific OHV use, but the overall trend would be increasing adverse effects to wildlife from increasing OHV disturbance.

#### 3.4.3.3 Effects of Alternative 2

This alternative would slightly reduce the level of wildlife disturbance associated with OHV use. Cross-country motorized travel would be prohibited, which would eliminate that form of wildlife disturbance. However, since most OHV traffic occurs on existing roads and trails, this reduction in disturbance is probably small. Over the short term, there probably would not be any noticeable change in wildlife disturbance, however there would be a long term benefit because the trend of increasing disturbance would be slowed or halted.

#### 3.4.3.4 Effects of Alternative 3

This alternative would benefit wildlife by immediately reducing the level of disturbance associated with OHV use. Restricting motorized travel to designated roads and trails would eliminate motorized disturbance in areas where trail development and increasing OHV use are currently causing wildlife disturbance. While the change would be variable across the "E" areas depending on the current amount of user-created routes and level of use, it would reverse the trend of increasing disturbance.

#### 3.4.3.5 Cumulative Effects

Other recreation activities that cause disturbance to wildlife include vehicle traffic on roads, hiking, horseback riding, mountain biking, hunting, and any other uses of designated and established trails. Forest Service management activities (such as timber harvest, prescribed burning, facility construction,

etc.) also cause short term wildlife disturbance while activities are taking place. Many of these same activities take place on nearby State and private land, as well. These other activities have varying trends. In general, recreation activities are increasing, timber harvest is decreasing, and prescribed burning is increasing. Under Alternative 1, concentrated areas of wildlife disturbance could develop around new roads or facilities. New road development associated with subdivisions or timber harvest in or adjacent to the "E" areas could lead to heavier OHV user-created trail development and use, which would lead to ongoing wildlife disturbance and displacement. Under Alternative 2 and 3 newly roaded areas in or adjacent to the "E" areas would still attract some recreational use, but the trail development and ongoing wildlife disturbance situation should not occur.

## **3.5 Visual Quality**

### **3.5.1 Introduction**

This project has a specific objective to slow or reverse the trend of OHV-caused resource damage to visual quality (1.8.2). The following analysis was done to determine how well the project meets these objectives.

### **3.5.2 Affected Environment**

Overall, the scenic condition of the "E" areas is that of a predominantly natural appearing landscape where the effects of recreation and management activities are often visible but are subordinate to the natural characteristic landscape. The extensive road system is part of the landscape context for many people and is not particularly offensive to them as they travel the road corridors. However, the proliferation of user-created routes has diminished the natural characteristics of the foreground landscape as seen from some main travel routes and has compromised scenic integrity in some areas.

### **3.5.3 Effects of Alternative 1 (No Action)**

User-created roads and trails created through indiscriminate cross country motorized travel would continue to compromise scenic integrity and gradually become more noticeable across the landscape. Popular areas near communities, subdivisions, campgrounds, and trails would likely have the most rapid and visible changes. Trails along ridgetops with sparse vegetation would be visible for a long distance. Hill climbing activity in shrubby or grassy areas would likely be the most unsightly and objectionable situation for Forest visitors.

### **3.5.4 Effects of Alternative 2**

This alternative would maintain the current scenic integrity associated with existing user-created routes in the "E" areas. Existing user-created routes would continue to be visible. Those receiving heavier use may become somewhat more apparent over time.

### **3.5.5 Effects of Alternative 3**

This alternative would improve scenic integrity in the "E" areas. Restricting motorized travel to designated roads and trails would allow user-created routes to gradually revegetate and become less visible and essentially disappear when viewed from a distance. The rate at which revegetation would occur would vary from site to site and could take decades in some areas.

### **3.5.6 Cumulative Effects**

Scenic integrity can be affected by any activity that gives the appearance of a man-made change to the landscape. Other activities in the “E” areas that affect visual quality are designated roads and trails, timber harvest, buildings, and recreation site developments. Forest Service developments are designed to meet Forest Plan standards and guidelines for visual quality objectives, which ensures that visual quality is maintained on the Forest.

Under Alternative 1 the continued trail development associated with casual OHV use near communities, rural subdivisions, and recreation sites could negatively affect the overall appearance of the areas. Since these areas are developed, trails are be an expected feature, but OHV user-created trails tend to develop in a maze pattern that looks irregular and chaotic alongside professionally designed and constructed facilities. Over time this trail development could degrade the scenic quality that people expect at these sites. Alternative 2 would maintain visual quality and Alternative 3 would improve visual quality so no adverse cumulative effects would occur with these alternatives.

## **3.6 Noxious Weeds**

### **3.6.1 Affected Environment**

Currently all of the “E” areas are at some risk of noxious weed invasion because cross-country motorized use is allowed.

Off-highway vehicle use can launch new populations of noxious weeds because the vehicles can cause ground disturbance and transport seeds. Vehicles driving through populations of noxious weeds can get seeds trapped in the tire tread or undercarriages. Then they can move to another area and drop seeds. Since OHV use also disturbs soil, the areas in which they drop seeds often have freshly disturbed soil that provides an effective seed bed. A similar situation exists along roads, which is why noxious weeds often occur in corridors along roadways and trails.

### **3.6.2 Effects of Alternative 1 (No Action)**

All of the “E” areas would remain at some risk of noxious weed invasion from OHV use. This risk would be greatest along existing road and trail corridors and other places vehicles access and gentler terrain where there is ground disturbance or bare soil caused by cross country OHV use.

### **3.6.3 Effects of Alternative 2**

This alternative would reduce the risk of noxious weed invasion. Restricting off-highway vehicles to existing routes would prevent OHVs from spreading noxious weed seeds to remote areas away from existing routes.

### **3.6.4 Effects of Alternative 3**

This alternative would reduce the risk of noxious weed invasion. Restricting off-highway vehicles to designated roads and trails would prevent OHVs from spreading noxious weed seeds outside the designated road and trail network corridor.

### **3.6.5 Cumulative Effects**

Noxious weeds can be spread by several activities. Vehicle or equipment use of any kind has the potential to spread seeds from site to site. Ground disturbance of any kind provides a likely seedbed

for noxious weeds. There is potential for animals to spread seed, but probably to a lesser extent than vehicles. Forest Service activities are routinely designed to reduce the risk of noxious weed spread (for example, requiring contractors to wash equipment, requiring forest users to use certified noxious weed free hay, and revegetating areas of ground disturbance). In addition, the Forest Service has a noxious weed program to inventory and treat both existing and new noxious weed infestations.

There is an interactive cumulative effect related to the potential for noxious weeds to spread to and from different land ownerships and to areas far away. This is unique to ATVs and motorcycles because weed seeds can stick to them, then the ATV or motorcycle is often moved long distances either in the back of a pickup or on a trailer. If the ATV or motorcycle is not washed, there is a potential for it to drop seeds far away from the population where it picked up the seeds. Alternative 1 would not change this situation. Alternatives 2 and 3 would limit the potential for noxious weed seeds to be brought into remote areas of the Forest. This would be particularly beneficial because remote areas are less likely to be effectively patrolled for noxious weeds and treated. There would be no change to the seed spread from the Forest to other areas under any of the alternatives. Public education over time could lead more OHV users to wash their vehicles more often, which would lessen this problem.

## 4 List of Preparers

The interdisciplinary team for this project included the following individuals.

Name	Title	Project Role
Kay Beall	botanist	sensitive plants
Jane Beaulieu	land management planner	team leader and recreation
Jeff Cook	wildlife biologist	wildlife
Clayton Nalder	fisheries biologist	fisheries
Sarah Peterson	hydrologist	soils and water quality

## 5 Appendix

### 5.1 References

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## 5.2 Sensitive Species

### 5.2.1 Introduction

There is a Regional Forest Service policy to include sensitive species biological evaluation determinations in environmental assessments. Tables showing determinations and a brief discussion of the rationale for the determinations follows.

## 5.3 Determination Tables

• Table 5-1. Determinations and Summary of Effects to Sensitive Wildlife Species

Species	Status	Alt. 1	Alt. 2	Alt. 3
Boreal Owl <i>Aegolius funereus</i>	Sensitive	MIIH	BI	BI
Great Gray Owl <i>Strix nebulosa</i>	Sensitive	MIIH	BI	BI
Flammulated Owl <i>Otus flammeolus</i>	Sensitive	MIIH	BI	BI
Northern Goshawk <i>Accipiter gentilis</i>	Sensitive	MIIH	BI	BI
Peregrine Falcon <i>Falco peregrinus anatum</i>	Sensitive	MIIH	BI	BI
Three-toed Woodpecker <i>Picoides tridactylus</i>	Sensitive	MIIH	BI	BI
White-headed Woodpecker <i>Picoides albolarvatus</i>	Sensitive and Management Indicator	MIIH	BI	BI
Common Loon <i>Gavia immer</i>	Sensitive	NI	NI	NI
Greater Sage Grouse <i>Centrocercus urophasianus</i>	Sensitive	MIIH	BI	BI
Mountain Quail <i>Oerortyx pictus</i>	Sensitive	MIIH	BI	BI
Fisher <i>Martes pennanti</i>	Sensitive	MIIH	BI	BI
Wolverine <i>Gulo gulo luscus</i>	Sensitive	MIIH	BI	BI
Western Big-eared Bat <i>Plecotus townsendii</i>	Sensitive	MIIH	BI	BI
Spotted Bat <i>Euderma maculatum</i>	Sensitive	MIIH	BI	BI
Spotted Frog <i>Rana pretiosa</i>	Sensitive	MIIH	BI	BI

• Table 5-2. Determinations and Summary of Effects to Sensitive Plant Species

Species	Status	Alt. 1	Alt. 2	Alt. 3
Slender moonwort <i>Botrychium lineare</i> *	Candidate	MIIH	BI	BI
Idaho primrose <i>Douglasia idahoensis</i>	Sensitive	MIIH	BI	BI
Bugleg goldenweed <i>Haplopappus insecticuriis</i>	Sensitive	MIIH	BI	BI
Slickspot peppergrass <i>Lepidium papilliferum</i>	Sensitive	MIIH	BI	BI
Least Phacelia <i>Phacelia minutissima</i>	Sensitive	MIIH	BI	BI

### Definitions of Determinations

**NI** = No impact

A determination of "No Impact" for sensitive species occurs when a project or activity will have no environmental effects on habitat, individuals, a population or a species.

**MIIH** = May impact individuals or habitat, but will not likely contribute to trend towards federal listing or loss or viability to the population or species.

These are activities or actions that have effects that are immeasurable, minor or are consistent with Conservation Strategies.

**WIFV** = Will impact individuals or habitat with a consequence that the action may contribute to a trend towards federal listing or cause a loss of viability to the population or species.

Loss of individuals or habitat can be considered significant when the potential effect may be as follows:

- Contributing to a trend toward Federal listing (C -1 or C -2 species)
- Results in a significantly increased risk of loss of viability to a species
- Results in a significantly increased risk of loss of viability to a significant population

**BI** = Beneficial impact

Projects or activities that are designed to benefit, or that measurably benefit a sensitive species should receive this conclusion.

**OSSR** = Outside of sensitive species range.

The species is known to not occur within a level HUC-5 watershed due to unavailable habitat.

### 5.3.1 General Rationale for Determinations

The rationale for no impact determinations was because no habitat was present. Alternative 1 determinations were "may impact individuals or habitat, but will not likely contribute to trend towards federal listing or loss or viability to the population or species" because cross-country OHV use would continue to cause some disturbance and habitat alterations. Alternatives 2 and 3 determinations were

“beneficial impact” because disturbance and habitat alterations would stay the same or decrease, which is an improvement over the current trend.



#### **5.4 List of Persons, Organizations, and Agencies Consulted**

Jean Smith  
Samuel and Karolee Blackwell  
Carl and Tom Nicholson  
Stephen Percy  
George Russell  
Elmer Ireland  
Peter Janss  
Greg Knudson  
Idaho State Snowmobile Association, Sandra Mitchell  
JR Cornell  
Clayton and Vera Stewart  
Dean Davison  
Ron Stricklin  
Kyle Warner  
Tom Glass  
McGrew Ranch, LLC, John McGrew  
Ada County Commissioners  
Ada County Fish and Game League, Dick Woodworth  
Adams County Commissioners  
Aldecoa and Son, Inc.  
Alliance for the Wild Rockies  
American Wildlands  
Backcountry Horsemen, Dan Ambrose  
Backcountry Horsemen, Harold Edwards  
Boise County Commissioners  
Bureau of Land Management, Snake River District  
Bureau of Land Management, State Director  
Congressman Butch Otter  
Congressman Mike Simpson  
Danskin Cattle Company, Bob Baker  
Danskin Mountain Club  
Davison and Sons, Bill Davison  
Double Diamond Ranch, Donald Rumsey  
Ecology Center  
Elmore County Commissioners  
Fairfield Ranger District  
Faulkner Land and Livestock, John Faulkner  
Gem County Commissioners  
Governor Dirk Kempthorne  
Half Moon Ranch  
Hammett Livestock Company, Ann Wilson  
Idaho ATV Association  
Idaho Cattlemen's Association  
Idaho Conservation League, John McCarthy  
Idaho Department of Environmental Quality  
Idaho Department of Fish and Game, Region 3  
Idaho Department of Fish and Game, Region 4  
Idaho Department of Lands, SW Idaho Office  
Idaho Department of Parks and Recreation  
Idaho Department of Water Resources, Water Planning Bureau  
Idaho Fish and Wildlife Federation

Idaho Outdoor Association  
Idaho Rivers United  
Idaho Sporting Congress, Ron Mitchell  
Idaho State Historical Society, Mary Ann Davis  
Idaho Trail Machine Association, Steve Gunderson  
Idaho Wildlife Federation  
Idaho Senate Resources and Env. Committee, Laird Noh  
Idaho Outfitters and Guides Association, Grant Simonds  
Idaho Woolgrowers Association, Stan Boyd  
Ireland Ranches, Calvin Ireland  
Lord Ranch, Jeff Lord  
Magic Valley Trail Machine Assn.  
Natural Resource Defense Council, Johanna Wald  
Office of General Counsel  
Ridge to Rivers Trail Coordinator  
Rockcrawler 4WD Club Kevin Kinzel  
Senator Larry Craig  
Senator Mike Crapo  
Sierra Club, Roger Singer  
Spring Valley Livestock Co.  
SWIMBA  
Treasure Valley Trail Machine Association  
USDA Forest Service, Region 4 Regional Forester  
USDI Fish and Wildlife Service  
Valley County Commissioners  
Wilderness Society Craig Gehrke  
Wildlife Council, Region 3  
YC Cattle Company Bob Bennett  
Clay and Betty Miller  
Black Canyon Bowmen  
American Sport Fishing Association  
Boone and Crockett Club  
Bowhunting Preservation Alliance  
Foundation for North American Wild Sheep  
Int'l Assoc. of Fish and Wildlife Agencies  
National Rifle Association  
National Shooting Sports Foundation  
National Wild Turkey Federation  
Pheasants Forever  
Pope and Young Club  
Public Lands Foundation  
Recreational Boating and Fishing Foundation  
Rocky Mountain Elk Foundation  
SCI - First for Hunters  
Theodore Roosevelt Conservation Partnership  
Wildlife Management Institute  
Moses Cattle Company, Roy Moses  
Boise Ridge Riders  
Backcountry Horsemen, Phil Ryan  
Backcountry Horsemen, Doug Sage  
Backcountry Horsemen, Terry Burgess  
Darl Allred  
Harry McCaulo  
Steve and Valerie Mc Dermottroe  
Little Cattle Company  
Stanley Kirkpatrick

Jerusalem Cattle Association Deb Marks  
Jennaro, Jerald, and Joseph Elena Songsangterm  
Branch Ranch Jay Branch  
James Amstutz  
Vernon and Roxie Himes  
Frank Shirts  
Charter Mountain Ranch, Inc.  
United Sportsmen's Alliance of Idaho  
Idaho Wildlife Council  
Idaho Trappers Association  
Idaho State Bowhunters  
Southeast Idaho Mule Deer Foundation  
Idaho Foundation for North American Sheep  
Rocky Mountain Elk Foundation Pat Cudmore  
Idaho House Committee-Resources and Conservation Bert Stevenson  
Idaho Fish and Game  
Blue Ribbon Coalition  
USDA Forest Service - Stanley Office  
Council Ranger District  
Weiser Ranger District  
Sawtooth National Forest  
Idaho Department of Lands  
Payette National Forest  
Cascade Ranger District  
Emmett Ranger District  
Idaho City Ranger District  
Lowman Ranger District  
West Mountain Snowmobile Club  
Robert Guthrie  
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Tim Kaufman  
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John Mosqueda  
David Jones  
Steve Kaufman  
Brian Hagen  
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Virginia Murphy  
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Jerry Tracey  
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Steven K. Rust  
Marc Clark  
Christopher Cook, International Mountain Bicycling Assoc.  
Fritz Ward  
James McDonald  
Murray Avison  
Richard Renstrom  
Mike and Connie McGowan  
Ben Reingold  
Brett Madron  
Ken Sawin  
Ben Reingold  
Timothy Burgess  
Floyd Greenwood  
Don Joyce

